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ALIGNMENTS	ABB66060	ABO62389	ADC87283	AAY35225	ABU28269	ADS45133	ABU15292	AAG98915	ABP73581	ABM53238	AAU56719	AAM82945	ABM41327	AAU44808	AB075198	AAG90242	ADG47144	ADA13459	ADG47100	ADG47134
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RESULT 1 AAW77197 Panet A, .. 04-MAR-1997; 04-MAR-1997; WPI; 1998-495863/42. 04-MAR-1998; Synthetic Pharmacuetically active peptide; target; organ; lymphocyte; treatment; pharmaceutical agent; disease; radioactive isotope; imaging agent. 23-NOV-1998 AAW77197 standard; peptide; 11-SEP-1998. WO9839469-A1 Pharmaceutically active peptide 38 AAW77197; (BIOT-) BIO-TECHNOLOGY GENERAL CORP. Homo sapiens Hagai Y, La , Belkind A, (first entry) 97US-0039509P. 97US-00810074. 98WO-US004188 Lazarovits J, A, Golan I; σ A Nimrod P, Vogel 'n Levanon

naturally- occurring pharmacuetically active peptides. These novel peptides specifically bind to undetermined and determined targets in various organs and in lymphocytes. The peptides or an be used in compositions, where they can be linked to pharmaceutical agents, to treat various diseases and conditions. The peptides or chimeric polypeptides comprising these pharmaceutically active peptides and a second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive isotope, etc) to form an interval of the second peptide may be labelled with a marker (radioactive peptides and a second peptide may be labelled with a marker (radioactive peptides and a second peptide may be labelled with a marker (radioactive peptides and a second peptide may be labelled with a marker (radioactive peptides and a second peptide may be labelled with a marker (radioactive peptides and a second peptide may be labelled with a marker (radioactive peptides and a second peptides and a second peptide may be labelled with a marker (radioactive peptides and a second pept

Sequences shown in AAW77160 to AAW77214 and AAW79167 represent non-

Claim

76; Page 99; 114pp; English.

imaging agent. be imaged

This agent is used to bind an organ

so that the organ can

New peptide(s) binding targets in organs and lymphocytes - used for the targetted delivery of toxins, anti-cancer drugs and cardiovascular agent to arteries, veins, placenta, liver.

cardiovascular agents

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RESULT 2
ABG78133
ID ABG7
XX ABG7

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                                                                                                                                                                                                                        The invention relates to a peptide or polypeptide comprising an FV comblecule, a construct or fragments or a construct of a fragment with cenhanced binding characteristics which selectively and/or specifically binds to a target cell in favour of other cells, where binding is primarily determined by a first hypervariable region and Fv is a single chain Fv (scFv) or a disulfide Fv (dsFv). The peptide, optionally in association with or attached, coupled, combined, linked or fused to a pharmaceutical agent, is useful in the manufacture of a medicament, where the medicament has activity against a diseased cell, preferably a cancer cell (selected from carcinoma, sarcoma, leukaemia, adenoma, lymphoma, caute myelond leukaemia cell). The peptide is also useful for preparing a composition for use in inhibiting the growth of a diseased or cancer cell. This sequence represents a human Fv molecule hypervariable region correlated peptide of the invention
                                                                  Query Match
Best Local S
Matches 6
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Best Local
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Plaksin D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel peptide/polypeptide for cancer therapy has Fv molecule, construct or fragment, or construct of fragment with enhanced binding characteristics so as to selectively bind target cell in favor of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-DEC-2001; 2001WO-US049440
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                                                                                                                                                                                Sequence 6
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                                                            Gaps
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RESULT 3
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                                                                                                   The invention relates to an isolated epitope present on cancer cells and climportant in physiological phenomena such as cell rolling, metastasis and climportant in physiological phenomena such as cell rolling, metastasis and climportant in physiological phenomena such as cell rolling, metastasis and climportant in physiology, in antibody, an antibody, clis antigen-binding fragment or its complex comprising at least one clist antibody or its binding fragment having a first hypervariable region. The clippes are useful for inhibiting cell rolling, inflammation, autoimmune clistopes are useful for inhibiting cell rolling, inflammation, autoimmune clistopes, thrombosis, restenosis, metastasis, growth and/or replication of cumour or leukaemia cells, increase in number of tumour or leukaemia cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-cells in a patient, cell-platelet adesion or aggregation, for increasing comerciality of tumour or leukaemia cells, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or for decreasing the number of tumour or leukaemia cells in a patient, or for decreasing the number of tumour or leukaemia cells in a patient, or for decreasing the number of tellogeness of tumour or leukaemia cells, for increasing the susceptibility of diseases such as expocardial infarction, treating cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diagnosing and treating cellseases such as myocardial infarction, treating cellseases such as myocardial infarction, autoimmune diseases and other diseases mediated by abnormal platelet cof the invention. This sequence represents a human antibody fragment cells invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 228; Opp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or carding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-674776/72.
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29-DEC-2000; 2000US-0258948P.
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                                                                                       of the invention
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Levanon A;
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Query Match
Best Local Similarity
Matches 6; Conserv

100.0%; ilarity 100.0%; Conservative 0

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Score 29; DB 5; Pred. No. 1.8e+06; 0; Mismatches 0;

Length 6; Indels

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ADI28369
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Best Local S
Matches 6
                                                                                                                                                                 determining region 3 (CDR3). The invention relates to compositions utilising an agent and an antibody or its fragment. The agent is a toxin, readiostope or pharmaceutical agent such as doxorubicin. It is complexed or combined with or conjugated to the antibody or its fragment. The antibody may have a first hypervariable region comprising the present and/or antibody can be present in the composition is sequence. The agent and/or antibody can be present in the composition is a sub-clinical amount, i.e. less than the amount generally found to be clinically effective when the agent is administered alone. The composition is used in claimed methods of: inhibiting cell rolling, inflammation, thrombosis, restenosis, metastasis, the growth and/or replication of tumour cells or leukaemia cells, an increase in number of tumour or leukaemia cells or leukaemia cells, an increase in number of platelet-platelet and/or cell-platelet complex formation, aggregation or adhesion, increasing the mortality rate of tumour or leukaemia cells, the susceptibility of tumour or leukaemia cells to damage by anti-cancer agents; and ameliorating the effects of a disease, preventing a disease, treating a disease or inhibiting the progress of a disease.
                                                                                                                                        Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Composition comprising an agent and/or antibody or its fragment, useful for treating auto-immune disease, thrombosis, restenosis, metastasis, or for inhibiting growth and/or replication of tumor cells or leukemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is that of a human antibody complementarity determining region 3 (CDR3). The invention relates to composition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer; therapy.
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                                                                Similarity 6; Conserv
                                MRAPVI 6
MRAPVI 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 4; 58pp;
                                                                    Conservative
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                                                                                 100.0%;
                                                                                 Score 29;
Pred. No.
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                                                                               1.8e+06;
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Query Match Best Local S Matches 6

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Conservative

100.0%; Score 29; DB 8; 100.0%; Pred. No. 1.8e+06; 100.0%; Mismatches 0;

Length 6;

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Gaps

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The present sequence is that of the heavy chain complementarity determining region 3 (CDR3) of 132 ADJ57363, an scFv antibody fragment that binds P-selectin glycoprotein ligand-1 (PSGL-1). L32 was identified by screening a phage library, which had diversity only in the heavy chain CC receptor was not previously known or characterised. The invention relates to an antibody or its fragment having the binding capabilities of 132 and CC comprising at least one of the heavy chain CDRs of 132. Such antibodies can be used in therapeutic, diagnostic, prognostic and staging methods. CC pharmaceutical compositions comprising such antibodies are used to treat conditions related to: inhibiting or treating cell rolling, inflammation, autoimmune disease, infection (e.g. HIV infection), metastasis, and CC growth and/or replication of tumour cells; increasing the mortality of tumour cells; altering the susceptibility of susceptibility of leukaemia cells altering the susceptibility of leukaemia cells to damage by anti-cancer agents; CC increasing the susceptibility of leukaemia cells in a patient; and decreasing the conduct cells in a patient; and decreasing the conduct cells in a patient; and decreasing the conduct cells using the antibodies. A method of purging tumour cells from a patient involves incubating the cells with the antibody.
   Sequence 6 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel antibody or its fragment that binds to an epitope of P-Selectin-Glycoprotein Ligand-1, useful for diagnosing/prognosing inflammation, infection, auto-immune disease, metastasis, tumor/leukemia cell in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; SEQ ID NO 2; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            patient
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2004003166-A2
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RESULT 7
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ABG78329
ID ABG7
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                                                                                                                                                                                                                                                                   The invention relates to a peptide or polypeptide comprising an Fv conscrue, a construct or fragments or a construct of a fragment with cenhanced binding characteristics which selectively and/or specifically binds to a target cell in favour of other cells, where binding is primarily determined by a first hypervariable region and Fv is a single chain Fv (scFv) or a disulfide Fv (dsFv). The peptide, optionally in association with or attached, coupled, combined, linked or fused to a pharmaceutical agent, is useful in the manufacture of a medicament, where the medicament has activity against a diseased cell, preferably a cancer cell (selected from carcinoma, sarcoma, leukaemia, adenoma, lymphoma, coupled, selected from carcinoma, sarcoma, leukaemia, adenoma, lymphoma, myelond leukaemia cell). The peptide is also useful for preparing a composition for use in inhibiting the growth of a diseased or cancer cell. This sequence represents a human Fv molecule hypervariable region content of the invention
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; Fv molecule; hypervariable region; single chain Fv; cytostatic; disulfide Fv; dsFv; scFv; cancer; carcinoma; sarcoma; leukaemia; adenoma; lymphoma; myeloma; blastoma; seminoma; melanoma; acute myeloid leukaemia.
                                                                                                                                                                                                                                           Sequence
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                                     ABG92026 standard;
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                                                                                                                                                                            Similarity 6; Conserv
                                                                                                                                                                                                                                           246 AA
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                                                                                                                                                                               Conservative
                                     protein;
                                                                                                                                                                                             100.0%;
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                                                                                                                                                                       Score 29; DB-5; Le
Pred. No. 1.5e+02;
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                                                                                                                                                                                                        Length 246;
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ABG78334 ID ABG7 XX

ABG78334 standard;

protein;

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The invention relates to an isolated epitope present on cancer cells and CC important in physiological phenomena such as cell rolling, metastasis and CC inflammation, where the epitope is capable of being bound by an antibody, CC its antigen-binding fragment or its complex comprising at least one CC antibody or its binding fragment or its complex comprising at least one CC antibody or its binding fragment having a first hypervariable region. The CC theory of the binding fragment having a first hypervariable region. The CC theory of the cell-cell, cell-cell rolling, inflammation, autoimmune CC cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-CC platelet and/or cell-platelet adhesion or aggregation, for increasing CC mortality of tumour or leukaemia cells, for increasing the susceptibility CC of diseased cells to damage by anti-disease, anti-cancer or anti-CC leukaemia agents, or in the manufacture of a medicament for the above CC mentioned purposes. The epitopse are useful for diagnosing and treating CC diseases such as cancer, leukaemia, autoimmune diseases, inflammatory CC diseases, cardiovascular diseases such as myocardial infarction, CC retinopathic diseases caused by sulphated tyrosine-dependent protein-cr invention and diseases caused by sulphated tyrosine-dependent protein of invention.
  Best Loc
Matches
                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antibody; epitope; cancer; tumour; cell rolling; inflammation; metastasis; hypervariable region; autoimmune disease; thrombosis; restenosis; leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal platelet function; sulphated tyrosine-dependent protein-protein interaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardiovascular diseases, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-DEC-2001; 2001WO-US049442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-DEC-2002 (first entry)
                                                                                     Sequence 246 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 52; Opp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-674776/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lazarovits J, Hagai Y,
Szanthon E, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-DEC-2000; 2000US-00751181.
29-DEC-2000; 2000US-0258948P.
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  Local Similarity
les 6; Conserv
100.0%; Score 29; Dilarity 100.0%; Pred. No. 1.: Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plaksin D, Vogel T, Nimrod A, Amit B, Kooperman L, Peretz T,
                        1.5e+02;
                                         DB 5;
                                       Length 246;
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Levanon A;
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RESULT 9
ABG92025
ID ABG9
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AC ABG9
XT 04-D
XX
AC ABG9
AT 04-D
XX
XX
ATT
KW Anti
KW meta
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hagai Y, L
Plaksin D,
                                                                                                                                                                                                                                                                                                                                                                                                                                 myeloma, blastoma, seminoma, and melanoma, where the leukaemia cell is a scute myeloid leukaemia cell). The peptide is also useful for preparing composition for use in inhibiting the growth of a diseased or cancer cell. This sequence represents a human Fv molecule hypervariable region related peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel peptide/polypeptide for cancer therapy has Fv molecule, construct or fragment, or construct of fragment with enhanced binding characteristics so as to selectively bind target cell in favor of other
Antibody; antibody biotag; cancer; tumour; cell rolling; inflammation; metastasis; hypervariable region; autoimmune disease; thrombosis;
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                            04-DEC-2002
                                                                                                                                                             ABG92025 standard; protein; 256 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a peptide or polypeptide comprising molecule, a construct or fragments or a construct of a fragme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 9; Page 90; 232pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-DEC-2000; 2000US-00751181.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-DEC-2001; 2001WO-US049440
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; Fv molecule; hypervariable region; single chain Fv; cytostatic; disulfide Fv; dsFv; scFv; cancer; carcinoma; sarcoma; leukaemia; adeno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human Fv molecule hypervariable region related peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lymphoma; myeloma; blastoma; seminoma; melanoma; acute myeloid leukaemia
                                                                                                                                                                                                                                                        100 MRAPVI 105
                                                                                                                                                                                                                                                                                        1 MRAPVI 6
                                                      biotag
                                                                                                                                                                                                                                                                                                                                                                                                   256 AA;
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, Peretz T;
                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                              100.0%;
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                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                           Score 29; DB 5;
Pred. No. 1.5e+02;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lipschitz O,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        carcinoma; sarcoma; leukaemia; adenoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Szanton
                                                                                                                                                                                                                                                                                                                                                             Length 256
                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a fragment
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                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cell is an
                                                                                                                                                                                                                                                                                                                           Gaps
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SXSXSXSXS

04-DEC-2002

(first entry)

antibody fragment #204.

ABG92020 standard; protein; 266

B

Human; antibody; epitope; cancer; tumour; cell rolling; inflammation;

S

1 MRAPVI 6 6 Similarity

Conservative

0

Mismatches

0;

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Gaps

0;

1.5e+02; DB 5;

Length 256;

100.0%; Score 29; 100.0%; Pred. No.

Query Match Best Local : Matches

Sequence 256

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WWW. SOWN CONTROL CONT
                                                                                                                             The invention relates to an isolated epitope present on cancer cells and C important in physiological phenomena such as cell rolling, metastasis and C inflammation, where the epitope is capable of being bound by an antibody, CC its antigen-binding fragment or its complex comprising at least one cepitopes are useful for inhibiting cell rolling, inflammation, autoimmune cdiseases, thrombosis, restenosis, metastasis, growth and/or replication of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-matrix, platelet-matrix of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diagnosing and treating cells in a patient, or in the manufacture of a medicament for the above diseases such as cancer, leukaemia, autoimmune diseases, inflammatory cdiseases such as cancer, leukaemia, autoimmune diseases, inflammatory cfinction and diseases and other diseases mediated by abnormal platelet function and diseases and other diseases mediated by abnormal platelet function interactions.
                                                                  protein interactions. This sequence the scope of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             restenosis; leukaemia; inflammatory disease; myocardial infarction; retinopathic disease; sulphated tyrosine-dependent protein-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diseases, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lazarovits J, Hagai Y, Szanthon E, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-DEC-2001; 2001WO-US049442
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2000US-0258948P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plaksin
Amit B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D, Vogel T,
Kooperman L,
                                                                                                         represents an antibody biotag used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cardiovascular disease; abnormal platelet funct interaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nimrod A, r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cardiovascular
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Levanon
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disease; thrombosis;

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RESULT 11
ABG78150
ID ABG78
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AC ABG78
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DT 15-N(
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated epitope present on cancer cells and climportant in physiological phenomena such as cell rolling, metastasis and inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune disease, thrombosis, restenosis, metastasis, growth and/or replication of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, cell-matrix, platelet—anticle platelet and/or cell-platelet adhesion or aggregation, for increasing mortality of tumour or leukaemia cells, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diseases, inflammatory diseases such as carcer, leukaemia, autoimmune diseases, inflammatory cretinonathic, disease, and other diseases such as myocardial infarction.
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Best Local S
Matches 6
                                                                                 Human Fv molecule hypervariable region related peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein interactions.
of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                retinopathic diseases and other diseases mediated by abnormal platele function and diseases caused by sulphated tyrosine-dependent protein-protein interactions. This sequence represents a human antibody fragm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or carding inflammation, for treating autoimmune, for the formation autoimmune, for 
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Szanthon E,
                                                                                                                                              15-NOV-2002
                                                                                                                                                                                                                                                              ABG78150 standard; protein; 277
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29-DEC-2000; 2000US-0258948P.
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                                                                                                                                                                                                                                                                                                                                                                                                             121 MRAPVI 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266 AA;
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, Richter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                              (first entry)
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Pred. No.
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ches 0;
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Peretz T,
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The invention relates to a peptide or polypeptide comprising an Fv CC molecule, a construct or fragments or a construct of a fragment with CC enhanced binding characteristics which selectively and/or specifically binds to a target cell in favour of other cells, where binding is primarily determined by a first hypervariable region and Fv is a single CC chain Fv (scFv) or a disulfide Fv (dsFv). The peptide, optionally in association with or attached, coupled, combined, linked or fused to a cc pharmaceutical agent, is useful in the manufacture of a medicament, where the medicament has activity against a diseased cell, preferably a cancer cell (selected from carcinoma, sarcoma, leukaemia, adenoma, lymphoma, cu myeloma, blastoma, seminoma, and melanoma, where the leukaemia cell is an acute myeloid leukaemia cell). The peptide is also useful for preparing a composition for use in inhibiting the growth of a diseased or cancer cell. This sequence represents a human Fv molecule hypervariable region correlated peptide of the invention
Matches
                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel peptide/polypeptide for cancer therapy has Fv molecule, construct or fragment, or construct of fragment with enhanced binding characteristics so as to selectively bind target cell in favor of other
                                                                              Sequence 277
                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 4; Page 155-156; 232pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-DEC-2001; 2001WO-US049440
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; Fv molecule; hypervariable region; single chain Fv; cytostatic; disulfide Fv; dsFv; scFv; cancer; carcinoma; sarcoma; leukaemia; adenoma; lymphoma; myeloma; blastoma; seminoma; melanoma; acute myeloid leukaemia.
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                      Local Similarity
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    Conservative
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                    100.0%;
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    0
                    Score 29; DB 5;
Pred. No. 1.7e+02;
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    Mismatches
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                                      Length 277;
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MRAPVI
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Human antibody
                                          04-DEC-2002
                                                         ABG91841 standard;
                                         (first entry)
                                 fragment
                                                        protein; 277
                                  #25.
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Human; antibody; epitope; cancer; tumour; cell rolling; inflammation; metastasis; hypervariable region; autoimmune disease; thrombosis; restenosis; leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal platelet function; sulphated tyrosine-dependent interaction

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an isolated epitope present on cancer cells and CC important in physiological phenomena such as cell rolling, metastasis and crimportant in physiological phenomena such as cell rolling, metastasis and cC inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one can tibody or its binding fragment having a first hypervariable region. The cc antibody or useful for inhibiting cell rolling, inflammation, autoimmune cd disease, thrombosis, restenosis, metastasis, growth and/or replication of ct tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, cell-matrix, platelet-matrix, platelet-cc platelet and/or cell-platelet adhesion or aggregation, for increasing contrality of tumour or leukaemia cells, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-cc leukaemia agents, or for decreasing the number of tumour or leukaemia cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diagnosing and treating contrality of diseases, cardiovascular diseases such as cancer, leukaemia, autoimmune diseases, inflammatory contrality of the cardiovascular diseases such as myocardial infarction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                         06-MAY-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 277 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardiovascular
   08-JAN-2004
                                       WO2004002528-A1
                                                                                                                Human; antibody;
                                                                                                                                                   Human scFv fragment Y1, binds to platelets
                                                                                                                                                                                                                                                               ADI28366 standard; protein; 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         retinopathic diseases and other diseases mediated by abnormal platelet function and diseases caused by sulphated tyrosine-dependent protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 23; Page 233-234; Opp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diseases, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-674776/72.
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29-DEC-2000; 2000US-0258948P.
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Szanthon E, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200253700-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the invention
                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                   1 MRAPVI 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                              scrv; platelet; drug delivery; cancer; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Caused by sulphated tyrosine-dependent protein-
This sequence represents a human antibody fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plaksin D, Vogel T, Amit B, Kooperman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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Pred. No. 1.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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Peretz T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 277;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is the protein sequence of human scFv fragment Y1. CC This antibody was identified by screening a human antibody phage library CC that has diversity only in the heavy chain CDR3 regions. Fixed human CC platelets were screened in order to identify antibodies that bind CC quantification, a subunit of the CD42 complex. Y1 also binds the CC and 285 on glycocalicin, a subunit of the CD42 complex. Y1 also binds the CC antibing an intibing an agent and an antibody or its fragment. The agent such as a CC compositions utilising an agent and an antibody or its fragment. The agent such as a CC composition. It is complexed or combined with or conjugated to the CC antibody or its fragment. The agent and/or antibody can be present in the composition is a sub-clinical amount, i.e. less than the amount generally found to be clinically effective when the agent is administered alone. CC inflammation, thrombosis, restenosis, metastasis, the growth and/or creplication of tumour cells or leukaemia cells, an increase in number of tumour or leukaemia cells, cell-matrix, platelet—matrix, platelet—matrix of disease cells to damage by anti-cancer agents; and ameliorating the mortality rate of tumour or leukaemia cells to damage by anti-cancer cc agents; and ameliorating the effects of a disease, preventing a disease, treating a disease or inhibiting the progress of a disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Composition comprising an agent and/or antibody or its fragment, useful for treating auto-immune disease, thrombosis, restenosis, metastasis, o inhibiting growth and/or replication of tumor cells or leukemia
                                                                                                                               Human; antibody; scFv; platelet; drug delivery; cancer; therapy
                                                                                                                                                                                                     06-MAY-2004
                                                                                                                                                                                                                                       ADI28367
                                                                                                                                                                                                                                                                      ADI28367 standard; protein; 278 AA
                                                              WO2004002528-A1
                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-099189/10
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                                                                                                                                                                                                                                                                                                                                                            121 MRAPVI 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 1;
                                                                                                                                                                   fragment Y17, binds to platelets.
                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 29; DB 8;
100.0%; Pred. No. 1.7e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      58pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                                                                                                                                                                              0
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                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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30-JUN-2003; 2003WO-US020604

08-JAN-2004

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ADI28368
ID ADI2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       agent is a toxin, radioisotope or pharmaceutical agent such as doxorubicin. It is complexed or combined with or conjugated to the antibody or its fragment. The agent and/or antibody can be present in the composition is a sub-clinical amount, i.e. less than the amount generally found to be clinically effective when the agent is administered alone. The composition is used in claimed methods of: inhibiting cell rolling, inflammation, thrombosis, restenosis, metastasis, the growth and/or replication of tumour cells or leukaemia cells, an increase in number of tumour or leukaemia cells or leukaemia cells, an increase in number of platelet-platelet and/or cell-platelet complex formation, aggregation or adhesion, increasing the mortality rate of tumour or leukaemia cells, the susceptibility of tumour or leukaemia cells to damage by anti-disease gents, and ameliorating the effects of a disease, preventing a disease, treating a disease or inhibiting the progress of a disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                          01-JUL-2002; 2002US-00189025
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human scfv fragment L32, binds to leukaemia cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-MAY-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADI28368 standard; protein; 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 278 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Composition comprising an agent and/or antibody or its fragment, useful for treating auto-immune disease, thrombosis, restenosis, metastasis, or for inhibiting growth and/or replication of tumor cells or leukemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUL-2002; 2002US-00189025
                                                                                                                            30-JUN-2003; 2003WO-US020604
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                                                                                                                                                                                                                                                                                                                              Homo sapiens
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(SAVI-) SAVIENT PHARM INC
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                                                                                                                                                                                                                                                                                                                                                                                            antibody; scFv; leukaemia; drug delivery; cancer; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MRAPVI 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry
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Pred. No.
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124

MRAPVI 129

1 MRAPVI 6 6;

Matches Query Match Best Local

Local Similarity

100.0%; Score 29; DB 8; 100.0%; Pred. No. 1.7e+02;

DB 8; Length 280;

Conservative

0,

Mismatches

<u>.</u>

Indels

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Gaps

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Sequence 280 AA;

Search completed: September Job time : 94.1 secs

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2005, 16:25:44

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gent and an antibody or its fragment. The agent is a toxin, radioisotope or pharmaceutical agent such as doxorubicin. It is complexed or combined with or conjugated to the antibody or its fragment. The agent and/or antibody can be present in the composition is a sub-clinical amount, i.e. less than the amount generally found to be clinically effective when the agent is administered alone. The composition is used in claimed methods of: inhibiting cell rolling, inflammation, thrombosis, restenosis, cells, an increase in number of tumour or leukaemia cells, cell-cell, cell-matrix, platelet—matrix, platelet—platelet and/or cell-platelet complex formation, aggregation or adhesion; increasing the mortality rate of tumour or leukaemia cells, the susceptibility of disease cells to leukaemia cells to damage by anti-disease gents, and the susceptibility of tumour or leukaemia cells to damage by anti-disease gents, and the susceptibility of tumour or leukaemia cells to damage by anti-disease gents, and the susceptibility of disease cells to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Composition comprising an agent and/or antibody or its fragment, useful for treating auto-immune disease, thrombosis, restenosis, metastasis, of for inhibiting growth and/or replication of tumor cells or leukemia
                                            effects of a disease, preventing a disease, treating a disease inhibiting the progress of a disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             that has diversity only in the heavy chain CDR3 regions. Leukaemia cells were screened to select specific antibodies that recognise leukaemia cell surface determinants. The invention relates to compositions utilising an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is the protein sequence of human scFv fragment L32.
This antibody was identified by screening a human antibody phage library
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Levanon
                                                                           ameliorating the a disease or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Leukaemia celle
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Maximum DB
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Gapop 10.0 ,
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1: pir1:*
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   Copyright
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ALIGNMENTS

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A;(Tross references: UNIPROT:Q53093; GB:U31090; NID:g1518877; PIDN:AAB07344.1; PID:g12932 C;Genetics:
A;Genetics:
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A;Genetics:
C;Superfamily: H+-transporting ATP synthase alpha chain; H+-transporting ATP synthase al C;Superfamily: H-transporting ATP synthase al C;Superfamily: H-transporting ATP synthase alpha chain homology <ATP>
F;191-362/Domain: H+-transporting ATP synthase alpha chain homology <ATP>
F;191-207/Region: ATP-binding #status predicted
F;191-207/Region: ATP-binding #status predicted
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JC4733
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R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J. B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M. proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
                                                                                                                                                                                                                                                                                                                                                                               Gene 170, 69-72, 1996
A;Title: Flagellar genes from Rhodobacter sphaeroides are A;Reference number: JC4733; MUID:96200857; PMID:8621091
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A; Residues: 1-442 <BAL>
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A; Residues: 1-249 <STO>
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A;Cross-references: UNIPROT:061371; EMBL:AF025
A;Experimental source: strain N2
C;Genetics:
A;Gene: ace-2
A;Map position: I
C;Superfamily: cholinesterase; cholinesterase
C;Keywords: carboxylic ester hydrolase
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S33045
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C;Species: human herpesvirus 4, Epstein-Barr virus
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995
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Pred. No. 42;
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Pred. No.
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Pred. No.
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A;Title: Genome sequence of enterohemorrhagic Escherichia A;Reference number: A85480; MUID:21074935; PMID:11206551 A;Recession: A85976 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-286 <STO-A;Cross-references: UNIPROT:P42908; GB:AE005174; NID:g1251 A;Experimental source: strain O157:H7, substrain EDL933
                                                                                                                                  tagatose-bisphosphate aldolase 2 [imported] - Escherichia coli (strain 0157:H7, C;Species: Escherichia coli
C;Species: Escherichia coli
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: A85976
C;Accession: A85976
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Riller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Nature 409, 529-533, 2001
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A85976

NID:g12517735; EDL933

PIDN: AAG58269.1;

GSPDB:

coli

O157:H7

D.J.; Mayhew K.; Apodaca,

substrai

41

MRSPVI

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; Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, Ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reev J. Bacteriol. 179, 7135-7155, 1997

A;Ticle: Complete genome sequence of Methanobacterium thermoautotrophicum A;Reference number: A69000; MUID:98037514; PMID:9371463

A;Accession: H69030
                                                                                                  A;Gene: ECs401/
C;Superfamily:
                                                                                                                                             A;Cross-references: UN:
A;Experimental source:
C;Genetics:
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A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7
A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: A91131
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C;Keywords: iron; metalloprotein
F;34,38,41/Binding site: iron (Cys)
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A;Experimental source: strain Delta
C;Genetics:
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A;Residues: 1-286 <HAY>
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A;Residues: 1-247 <MTH>
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Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change
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RIMD 0509952
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A;Cross-references: UNIPROT:Q9Z7V1; GB:AE001645; GB:AE001363; NID:g4376896; PIDN:AAD187
A;Experimental source: strain CWL029
R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hickey,
C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzberg
Nucleic Acids Res. 28, 1397-1406, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: B65103
R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.;
A.; Rose, D.J.; Mau, B.; Shao, Y.
A;Cross-references: GB:AE002175; GB:AE002161; A;Experimental source: strain AR39, HL cells
                                         A; Molecule type: DNA
A; Residues: 1-327 < REA>
                                                                                                               A; Reference number: A81500; A; Accession: F81609
                                                                                                                                 Nucleic Acids Res. 28, 1397-1406, 2000
A;Title: Genome sequences of Chlamydia trachomatis MoPn and
A;Reference number: A81500; MUID:20150255; PMID:10684935
                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-327 < ARN>
                                                                                                                                                                                                                                                                                                                                                                             A; Title: Comparative genomes of Clamydia pneumoniae and C. A; Reference number: A72000; MUID:99206606; PMID:10192388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ferrochelatase CP0144 [imported] - Chlamydophila pneumoniae (strains CWL029 C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 09-Jul-2004
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A;Residues: 1-286 <BLAT>
A;Cross-references: UNITROT:P42908; GB:AE000395; GB:U00096; NID:g1789524; PIDN:AAC76171
A;Experimental source: strain K-12, substrain MG1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli K-12
A;Reference number: A64720; MUID:97426617; PMID:9278503
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C;Superfamily:
                                                                                       A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                           A; Accession: E72057
                                                                                                                                                                                                                                                                                                                                                                                                                            R;Kalman, S.; Mitchell, W.; Marathe, R.; Lammel, C.; Fan, Nature Genet. 21, 385-389, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Status: preliminary; nucleic acid sequence not shown; translation
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Best Local
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A;Cross-references: EMBL:U14003; NID:g1263172; PIDN:AAA97132.1; PID:g537077 A;Note: the nucleotide sequence was submitted to the EMBL Data Library, Aug R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; A.; Rose, D.J.; Mau, B.; Shao, Y. Science 277, 1453-1462, 1997
                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:P24231; EMBL:X54152; NID:g42439; PIDN: R,Burland, V.; Plunkett III, G.; Sofia, H.J.; Daniels, D.L.; Blatt Nucleic Acide Res. 23, 2105-2119, 1995
A;Title: Analysis of the Escherichia coli genome VI: DNA sequence A;Reference number: S56314; MUID:95334362; PMID:7610040
A;Accession: S56461
                   Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617; PMID:9278503
A;Accession: F65235
                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-450 < ROD>
                                                                                                                                                                                                                                                                                                                                                                                                                            Mol. Microbiol. 4, 1921-1932, 1990
A;Title: Molecular characterization of pmbA, an Escherichia coli chromosomal gene requir
A;Reference number: S13730; MUID:91186828; PMID:2082149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 29-Jan-1999 #sequence revision 29-Jan-1999 #text_change C;Accession: S13730; S56461; F65235 R;Rodriguez-Sainz, M.C.; Hernandez-Chico, C.; Moreno, F. Mol. Microbiol. 4, 1921-1932, 1990
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A;Title: Comparison of whole genome sequences of chlamydia A;Reference number: A86491; MUID:20330349; PMID:10871362
    A;Status: nucleic
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A; Residues: 1-450 <BUR>
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A; Accession: S13730
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A; Residues: 1-327 <STO>
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  shown;
  translation not
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Blattner, F.R.
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A;Molecule type: DNA A;Residues: 1-450 <B

A;Cross-references: GB:AE000494; GB:U00096; NID:g1790670; PIDN:AAC77192.1; PID:g1790682

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Experimental source: strain C;Genetics:
A;Gene: pmbA
A;Map position: 96 min
C;Superfamily: Escherichia col
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A;Cross-references: UNIPROT:P24231; GB:AE005174;
A;Experimental source: strain O157:H7, substrain C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7 A;Reference number: A85480; MUID:21074935; PMID:11206551 A;Accession: D86121
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S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.;
A;Title: Complete genome sequence of a multiple drug resistant
A;Reference number: AB0502; MUID:21534947; PMID:11677608
A;Accession: AB1056
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R;Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, N.R.; Pickard, Pick
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C;Superfamily: Escherichia coli pmbA protein
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C;Genetics:
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A; Residues: 1-450 < PAR>
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A;Map position: !
C;Superfamily: E:
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P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd,
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    Mismatches

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Pred. No. 1.4e+02;
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A;Reference number: Z19954
A;Reference number: Z19954
A;Accession: T24916
A;Status: preliminary; translated from
A;Molecule type: DNA
A;Residues: 1-138 <WILD
A;Cross-references: UNIPROT:022499; EV
A;Cross-references: Clone T14G10
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C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T24916
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-450 <HAY>
A;Cross-references: UNIPROT:P24231; GB:BA000007; PIDN:BAB38635.1; PID:g13364689; GSPDB:GA;Experimental source: strain O157:H7, substrain RIMD 0509952
C;Genetics:
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A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: D91280
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C;Superfamily: Escherichia coli pmbA protein
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A; Introns: 52/3; 108/2
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Q65mz6 Q9z7v1 Q9te68 Q9te71 P24231

chlamydia p nitzschia f cylindrothe escherichia salmonella

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P42908
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O88779
Q6fd44
Q8vc82
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 RESULT 2
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Q9A2W4;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequer
01-MAR-2004 (TrEMBLrel. 26, Last annote
Hydrolase, alpha/beta hydrolase fold fa
OrderedLocusNames=CC3442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=ATCC 19089 / (
MEDLINE=21173698; Pub
Nierman W.C., Feldbl)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0016787; F:hydrolase activity; IEA.
GO; GO:0016787; F:hydrolase activity; IEA.
GO; GO:0006725; F:aromatic compound metabolism;
InterPro; IPR003073; A/b hydrolase.
InterPro; IPR003089; AB hydrolase.
InterPro; IPR00379; SeT_estrs.
Pfam; PF00561; Abhydrolase 1; 1.
PRINTS; PR00111; Abhydrolase.
Complete protecome; Hydrolase.
SEQUENCE 249 AA; 26772 MW; 491350127DD300AE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=21173698; PubMed=11259647; DOI=10.1073/pnas.061029298; Nierman W.C., Feldblyum T.V., Laub M.T., Paulsen I.T., Nelson K.E., Bisen J.A., Heidelberg J.F., Alley M.R.K., Ohta N., Maddock J.R., Potocka I., Nelson W.C., Newton A., Stephens C., Phadke N.D., Ely B. DeBoy R.T., Dodson R.J., Durkin A.S., Gwinn M.L., Haft D.H., Kolonay J.F., Smit J., Craven M.B., Khouri H.M., Shetty J., Berry K.J., Utterback T.R., Tran K., Wolf A.M., Vamathevan J.J., Ermolaeva M.D., White O., Salzberg S.L., Venter J.C., Shapiro L., Fraser C.M.;
Q63ZV1 PRELIMINARY;
Q63ZV1;
25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Complete genome sequence of Caulobacter crescentus.";
Proc. Natl. Acad. Sci. U.S.A. 98:4136-4141(2001).
EMBL; AE006003; AAK25404.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria; Alphaproteobacteria; Caulobacterales; Caulobacteraceae; Caulobacter.
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Q8FAF2
Q7UKY8
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Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

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A Hopkins R.F., Jordan H., Moore T., Rubin G.M., Hong L.,

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A Hopkins R.F., Jordan H., Moore T., Rax S.I., Wang J., Hong L.,

B Gatchenko L., Marusina K., Farmer A.A., Grarinat P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Bosak S.A., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Bosak S.A., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Hitling M., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Whitling M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

Jones S. T. Marra M.A.
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SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Mouse;
STRAIN=C57BL/6; TISSUE=Mouse;
PubMed=12477932; DOI=10.1073/pnas.242603899;
PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.L., Feingold E.A., Grouse L.H., Shenmen C.M., St
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Q53093;
                                      Ballado T., Campos A., Camarena L., Dreyfus G.; "Flagellar genes from Rhodobacter sphaeroides are of the file operon of Salmonella typhimurium and t secretion system."; Gene 170:69-72(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rhodobacter sphaeroides (Rhodopseudomonas sphaeroides).
Bacteria; Proteobacteria; Alphaproteobacteria; Rhodobacterales;
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                                                                                                                                                                                                                                                                                                                MEDLINE=96200857; PubMed=8621091; DOI=10.1016/0378-1119(95)00855-1;
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T "Cloning of the flil gene from Rhodobacter sphaeroides WS8 by
T "Cloning of the flil gene from Rhodobacter sphaeroides WS8 by
T of a transposon mutant with impaired motility.";

I FEMS Microbiol. Lett. 142:111-116(1996).

C -!- SIMILARITY: Belongs to the ATPase alpha/beta chains family
REMBL; X97201; CAA65834.1; -.

REMBL; X97201; CAA65834.1; -.

RGO; GO:0005737; C:cytoplasm; IEA.

GO; GO:0005737; C:cytoplasm; IEA.

GO; GO:0016469; C:proton-transporting two-sector ATPase comple:
GO; GO:0016869; F:ATP binding; IEA.

GO; GO:0016897; F:hydrogen-transporting ATP synthase activity.

RGO; GO:0016897; F:hydrogen-transporting ATPase activity, rota.

GO; GO:0016897; F:hydrolase activity; IEA.

GO; GO:0016986; F:nucleotide binding; IEA.

RGO; GO:0015986; P:ATP synthesis coupled proton transport; IEA.

RGO; GO:0005181; P:protein transport; IEA.

RGO; GO:0005191; P:protein transport; IEA.

RGO; GO:0015031; P:protein transport; IEA.
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R PIR; JC4733; JC4733.

R PISP; P03072; 1PVO.

R GO; GO:0005737; C:cytoplasm; IEA.

R GO; GO:0005737; C:cytoplasm; IEA.

R GO; GO:000524; F:ATP binding; IEA.

R GO; GO:0016867; F:ATP binding; IEA.

R GO; GO:001687; F:Aydrogen-transporting ATP synthase

R GO; GO:0046933; F:hydrogen-transporting ATPase activ

R GO; GO:0046931; F:hydrogen-transporting ATPase activ

R GO; GO:0016787; F:hydrolase activity; IEA.

R GO; GO:0015787; F:hydrolase activity; IEA.

R GO; GO:0015986; P:ATP synthesis coupled proton trans

R GO; GO:0009058; P:biosynthesis; IEA.

R GO; GO:0009058; P:biosynthesis; IEA.

R GO; GO:000581; P:protein transport; IEA.

R GO; GO:0015031; P:protein transport; IEA.
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Q53153;
01-NOV-1996
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InterPro;
InterPro;
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Bacteria; Proteobacteria; Alphaproteobacteria; Rhodobacterales;
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Name=fliI;
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STRAIN=WS8;
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01-MAR-2004 (TrEMBLrel.
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PROSITE; PS00152; ATPASE ALPHA BETA; UNKNOWN 1.

ATP synthesis; ATP-binding; Hydrolase; Ion transport; '
SEQUENCE 442 AA; 46852 MW; E6D35531F5A59BAE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=96327148; PubMed=8759796;
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NO; GO:0015031; P:protein transport; IEA.
InterPro; IPR003593; AAA_ATPase.
InterPro; IPR00194; ATPase a/bcentre.
InterPro; IPR004100; ATPase a/bc.
InterPro; IPR004100; ATPase_a/b_N.
InterPro; IPR004100; ATPase_a/b_N.
InterPro; IPR004100; ATPase_a/b_N.
INTERPRO; IPR005714; F1II YSCN.
YEAM; PF000066; ATPasynt_ab; 1.
MART; SM00382; AAA; 1.
IGREAMS; TIGRO1026; ETII YSCN; 1.
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Binne U.K., Amon W., Farrell P.J.;
"Induction of Epstein-Barr virus late promoters on small
the EBV late lytic cycle requires ori lyt.";
Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases
EMBL; AJ507799; CAD53449.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Transcription and DNA sequence Epstein-Barr virus."; EMBO J. 3:1083-1090(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "DNA
                                                                                        Submitted
                                                                                                                                                                                                                                             Bodescot M., Perricaudet M.; "Clustered alternative splic
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                                                                                                                                                                                                                                                                                                                                   MEDLINE=84247360; PubMed=6330697;
Gibson T., Stockwell P., Ginsburg M.,
"Homology between two EBV early genes
                                                                                                                                                                                                                                                                                                                                                                                                                           "A cis-acting element stable replication of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-B95-8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=84236104; PubMed=6203743;
Biggin M., Farrell P.J., Barrell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-B95-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jones M.D., Foster L., 9
"The EB virus genome in similar to that observed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=20331131; PubMed=10872327; Farrell P.J., Bankier A., Seguin C., "Latent and lytic cycle promoters of EMBO J. 2:1331-1338(1983).
                                                       STRAIN=895-8;
                                                                  SEQUENCE FROM N.A.
                                                                                                             STRAIN-B95-8;
                                                                                                                      SEQUENCE FROM
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                                                                                                                                            Parker B.D., Bankier A., Satchwell S., Barrell B., Farr
"Sequence and transcription of Raji Epstein-Barr virus
the B95-8 deletion region.";
Virology 179:339-346(1990).
                                                                                                                                                                                       MEDLINE=91021036; PubMed=2171209;
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EMBL/GenBank/DDBJ
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Burkitt's lymphoma cells
non-transforming strain (
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RESULT REPORT OF THE PROCESS OF THE 
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Pfam; PFO;
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                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entrepean Bioinformatics Institute. There are no restructe by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
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075783; Q9NQ85;
                      EMBL; Y17108; CAA76629.1; -
EMBL; AJZ72344; CAC00640.1;
EMBL; AE006464; AAK61241.1;
MEROPS; S54.005; -.
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Tufarelli C.,
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25-OCT-2004 (Rel. 45, Last annotation update)
Rhomboid-related protein 1 (EC 3.4.21.-) (RRP)
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28-FEB-2003 (Rel. 41,
25-OCT-2004 (Rel. 45,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=21096910; PubMed=11157797; DOI=10.1093/hmg/10.4.339; Daniels R.J., Peden J.F., Lloyd C., Horsley S.W., Clark K., Tufarelli C., Kearney L., Buckle V.J., Doggett N.A., Flint J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=98324821; PubMed=9662444; Pascall J.C., Brown K.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Sequence, structure and pathology of the fully annotated terminal Mb of the short arm of human chromosome 16."; thum. Mol. Genet. 10:339-352(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence similarity to the Drosophila FBBS Lett. 429:337-340(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                and the subsequent release of functional polypeptides membrane anchors (By similarity).

SUBCELLULAR LOCATION: Integral membrane protein.

ALTERNATIVE PRODUCTS:

Event-Alternative splicing; Named isoforman-
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                                                                                                                                                                                                                                                                                                                                                IsoId=075783-2; Sequence=VSP_005372;
SSUE SPECIFICITY: Detected in heart,
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an email to license@isb-sib.ch).
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PSEQUÉNCE FROM N.A.

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RC STRAIN=ATCC 13032 / DSM 20300 / NCIB 10025;

RC STRAIN=ATCC 13032 / DSM 20300 / NCIB 10025;

RX Pubmed=12948626; DOI=10.1016/S0168-1656(03)00154-8;

RX Pubmed=12948626; DOI=10.1016/S0168-1656(03)00154-8;

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and its impact on the production and vitamins.";

J. Biotechnol. 104:5-25(2003).
EMBL; BAP005275; BAB97834.1; -.
EMBL; BX927149; CAF19157.1; -.
InterPro; IPR007816; ResB.
Pfam; PF05140; ResB; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QBNT69; 06M7S9; 01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
ResB protein required for cytochrome c biosynthesis (Membrane required for cytochrome c biosynthesis)
07deredLoccusNameseCg10441, cg052;
07deredLoccusNameseCg10441, cg052;
Corynebacterium glutamicum (Brevibacterium flavum).
Bacteria, Actinobacteria, Actinobacteridae; Actinomycetales;
Corynebacterineae; Corynebacteriaceae; Corynebacterium.
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.

STRAIN-ATCC 13032 / DSM 20300 / NCIB 10025 Nakagawa;
Nakagawa S.;

"Complete genomic sequence of Corynebacterium glutam
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databa
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GO; GO:0005887; C:integral to plasma membrane; TAS.

GO; GO:0005624; C:membrane fraction; TAS.

GO; GO:0007165; P:81gnal transduction; TAS.

InterPro; IPR002048; EF-hand.

InterPro; IPR002048; EF-hand.

InterPro; IPR002048; RF-hand.

InterPro; IPR002610; Rhomboid_like.

Pfam; PF01694; Rhomboid; 1.

Alternative splicing; Hydrolase; Protease; Serine protease;
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Potential.

Potential.

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Potential.

Charge relay system (By similarity).

SOKCWEDEDAPSOPOPALWSEGRARTQALAGGSSL -> M
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Pred. No. 2.2e+02;
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/FTId=VSP 005372.
A7644AD39644A2F6 CRC64;
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databases.
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Pred. No. 2.7e+02;
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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casvant T.L., Scheetz T.E.,
RA Stapleton M.J., Usdin T.B., Toshiyuki S., Carvinci P., Prange C.,
RA Rownstein M.J., Usdin T.B., Toshiyuki S., Carvinci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Booak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Touchman J.W., Green E.D., Dickson M.C.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
ROdriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences ";
Proc. Natl. Acad. Scit. U.S.A., 99:16899-16903 (2002).
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28-FEB-2003 (Rel. 41, I
25-OCT-2004 (Rel. 45, I
                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content
                                                                                EMBL; BC021549; AAH21549.1; MEROPS; S54.005; -.
                              InterPro;
                                                                                                                                                                or send
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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PROSITE;
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InterPro;
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                                                                                                                                                                                                                                                                                                                                                     and the subsequent release of functional polypept membrane anchors (By similarity).
SUBCELLULAR LOCATION: Integral membrane protein SIMILARITY: Belongs to the peptidase S54 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: May be involved in
                        MGI:2384891; Rhb
rPro; IPR002048;
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Pro; IPR007055; TAD.
PF04972; BON; 1.
TE; PS50914; BON; 1.
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                                                                                                                                                                              and this statement is not requires a license agreeme
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231 AA;
                                                                                                                                                     equires a license agreement (Some after the equires a license@isb-sib.ch).
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6; TISSUE=Retina;
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. 45, Last annotation update)
protein 1 (EC 3.4.21.-) (RRP)
                                                 Rhbdl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=12477932; DOI=10.1073/pnas.242603899; Peingold E.A., Grouse L.H., Derge J.G.,
EF-hand.
EF_Hand_like
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nvolved in regulated intramembrane prelease of functional polypeptides
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Pred. No.
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RA da Silva A.C.R., Ferro J.A., Reinach F.C., Farah C.S., Furlan L.R.,
RA Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
RA Clamarotte G., Camaral A.M., Bercolini M.C., Camarogo L.B.A.,
RA Cicarelli R.M.B., Coutinho L.L., Cursino-Santos J.R., El-Dorry H.,
RA Faria J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T.,
RA Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
RA Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
RA Katsuyama A.M., Kishi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F.,
RA Katsuyama A.M., Kishi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F.,
RA Katsuyama A.M., Kishi L.T., Medeira R.M.B.N., Martinez-Rossi N.M.,
RA Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
RA Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
RA Moreira H.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R.,
RA Pereira H.A., Rossi A., Sena J.A.D., Silva C., de Souza R.F.,
RA Spinola L.A.F., Takita M.A., Tamura R.E., Telxeira E.C., Tezza R.I.D.,
RA Spinola J.C., Kitajima J.P.,
RT "Comparison of the genomes of two Xanthomonas pathogens with differing Not specificities.",
       Query Match
Best Local S
Matches 5
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Matches
                                                                                                                                                          Nature 417:459-463 (2002).

Nature 417:459-463 (2002).

GO; GO:0016020; C:membrane; IEA.

GO; GO:000306; P:protein secretion; II
InterPro; IPR006135; Bac Export 2.

InterPro; IPR006136; FlhB.

Pfam; PF01312; Bac export 2; 1.

PRINTS; PR00950; TYPB3IMSPROT.
                                                                                                TIGRPAMS;
Complete p
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01-OCT-2002 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
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Name=flhB; OrderedLocusNames=XCC1910;
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ICC 33913 / NCPPB 528;
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.a; Gammaproteobacteria; Xanthomonadales;
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Pred. No. 1.8e+02;
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Pred. No. 1.8e+02;
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Hypothetical
SEQUENCE 42
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P30119;
                                                                                                                                                                                                   Q777C1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=84270667; PubMed=6087149;
Baer R., Bankier A.T., Biggin M.D., D
Gibson T.J., Hatfull G., Hudson G.S.,
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05-JUL-2004
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MEDLINE-84270667; PubMed=6087149;
Baer R.J., Bankier A.T., Biggin M.
Gibson T.J., Hatfull G.F., Hudson
Tuffnell P.S., Barrell B.G.;
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05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
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                                                                                                Human herpesvirus 4 (Epstein-Barr virus).
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Gammaherpesvirinae; Lymphocryptovirus.
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Gammaherpesvirinae; Lymphocryptovirus.
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                                                  SEQUENCE FROM N.A.
STRAIN=B95-8;
                                                                                                                                       BTRF1 protein (Fragment)
Name=BTRF1;
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                                                                                    NCBI_TaxID=10376;
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Nature 310:207-211(1984).
-|- SIMILARITY: Belongs to the herpesviruses BTRF1 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tuffnell P.S., Barrell B.G.;
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rPro; IPR006772; Herpes BTRF1.

r); PF04682; Herpes BTRF1; 1.
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MRAPVV 290
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425 A
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(Rel. 25, Last sequence update)
(Rel. 44, Last annotation updat
                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                 PRELIMINARY;
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Pred. No. 2.1e
1; Mismatches
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Last annotation updat
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              M.D., De
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., Satchwell S.C.,
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             Deininger P.L., Fa., Satchwell S.C.,
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SEQUENCE I
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Deininger P.L., Bankier A., Farrell P., Baer R., Barrell B.
"Sequence analysis and in vitro transcription of portions o
Epsteain-Barr virus genome.";
J. Cell. Biochem. 19:267-274(1982).
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"Molecular cloning of the complete Epstein-Barr virus genome
of overlapping restriction endonuclease fragments.";
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STRAIN=895-8;
MEDLINE=85060428; PubMed=6094955;
Bankier A.T., Deininger P.L., Sat
                                                                                                                                                       Jeang K.T., Hayward S.D.;
"Organization of the Epstein-Barr virus DNA molecule. III. Location of The Posterion and characterization of the NotI repeat units that form part of the template for an abundant 12-0-tetradecanoylphorbol-13-acetate-induced mRNA transcript.";
J. Virol. 48:135-148(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=83169725; PubMed=6300857; Farrell P.J., Deininger P.L., Bankier A.,
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"A spliced Epstein-Barr virus
lymphocytes is created by circ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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STRAIN=B95-
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"Homologous upstream sequences near Epstein-Barr virus
Proc. Natl. Acad. Sci. U.S.A. 80:1565-1569(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Possible role of flanking nucleotides in recognition initiator codon by eukaryotic ribosomes."; Nucleic Acids Res. 9:5233-5252(1981).
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                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=83294686; PubMed=6310141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguin C., Farrell P.J.,
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                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "DNA sequence and transcription

Epstein-Barr virus.";

Mol. Biol. Med. 1:369-392(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=85060424;
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det M., Farrell P.J.;
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L., Walsh J.E.,
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base-pair EcoRI fragment
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             Farrell
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Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                 STRAIN-Bristol N2;
Woessner J., Graves T
"The sequence of C. e
Submitted (NOV-1998)
                                                                                                                                                                                                      Waterston
Submitted
                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-Bristol N2;
                       STRAIN-Bristol N2
                                          SEQUENCE FROM N.A.
                                                                                        Submitted
                                                                                                                  Wilson R
                                                                                                                                STRAIN-Bristol
                                                                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WormBase Consortium;
"Genome sequence of the nematode
investigating biology. The C. ele
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-98198570; PubMed=9539167; DOI=10.1016/S0014-5793(98)00191-4; Grayeo M., Culetto E., Combes D., Fedon Y., Toutant J.P., Arpagaus M "Existence of four acetylcholinesterase genes in the nematodes Caenorhabditis elegans and Caenorhabditis briggsae."; FEBS Lett. 424:279-284(1998).
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Nameace-2; ORFNames=Y44E3A.2;

Caeno;habditis elegans.

Cueno;habditis elegans.

Eukarota; Metazoa; Nematoda; Chromadorea;

Rhabditidae; Peloderinae; Caenorhabditis.
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SMART; SM00382; AAA; 1.

TIGRFAM6; TIGRO1026; fliI yscN; 1.

PROSITE; PS00152; ATPASE ALPHA BETA; UNKNOWN 1.

ATP synthesis; ATP-binding; Hydrolase; Ion trans
SEQUENCE 442 AA; 46813 MW; AD070D4E17FD3CC3
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MEDLINE=99069613;
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Submitted (JUN-1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Retylcholinesterase (EC 3.1.1.7) (Abnormal acetylcholinesterase
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gans cosmid Y44E3A.";
the EMBL/GenBank/DDBJ
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EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ode C. elegans: a platform for elegans Sequencing Consortium.";
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Pred. No.
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RC STRALN=C57BL/6; TISSUE=Brain;
RC STRALN=C57BL/6; TISSUE=Brain;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Lischul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haiseh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hoiseh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casawant T.L., Scheetz T.E.,
RA Brownstein M.J., U6din T.B., Bonaldo M.F., Casawant T.L., Scheetz T.E.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Boutfard G.G.,
RA Rodriguez A.C., Grinwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grinwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Toyninski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
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WormPep; Y4453A.2; CE23363.

GO; GO:0003990; F:acetylcholinesterase activity; IEA.

GO; GO:0003901; F:acetylcholinesterase activity; IEA.

GO; GO:0016797; F:hydrolase activity; IEA.

GO; GO:0016797; F:hydrolase activity; IEA.

InterPro; IPR002018; CarbesteraseB.

InterPro; IPR00397; Cholinesterase.

InterPro; IPR00379; Ser_estrs.

Pfam; PF00115; COesterase; 1.

PRINTS; PR00152; CARBOXYLESTERASE_B_1; 1.
Strausberg R.;
Submitted (OCT-2003) to the
EMBL; BC058971; AAH58971.1;
InterPro; IPR006933; HAP1_N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUL-2004
05-JUL-2004
05-JUL-2004
                                                              SEQUENCE FROM N
STRAIN=C57BL/6;
                                                                                                                               and mouse
                                                                                                                                          "Generation and initial analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
Mus musculus (Mouse).
Eukaryota; Metazoa; Cl
Mammalia; Eutheria; Ro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6PD31;
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-!- SIMILARITY: Belongs to the type-B carboxylesterase/lipase family.
EMBL; AF025378; AAC14016-2; -
EMBL; AF02589; AAC78228.2; -
EMBL; AF106589; AAC78228.2; -
EIR; T335842; T33842.
FIR; T37555; T37555.
HSSP; P06276; 1P0P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Metazoa; Chordata;
Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
(TrEMBLrel.
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                                                                                                                               sequences."
                                                         .A.
TISSUE=Brain;
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                                EMBL/GenBank/DDBJ databases
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Last annotation updat
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Pred. No. 1.8
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                                                                                                            99:16899-16903 (2002)
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R InterPro; IPR010978; tRNA_binding_arm.
R Pfam; PF04849; HAPI N; 1.
R PROSITE; PS00024; HEMOPEXIN; UNKNOWN_1.
Hypothetical protein.
SEQUENCE 939 AA.
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088779;

28-FEB-2003

28-FEB-2003

25-OCT-2004
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NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AK122426; BAC65708.1; -. GO; 70:0005634; C:nucleus; ISS. GO; GO:0005886; C:plasma membrane; ISS. GO; GO:0005886; C:plasma membrane; ISS. GO; GO:0005102; F:protein binding; ISS. GO; GO:0006102; F:receptor binding; ISS. GO; GO:0006605; P:protein targeting; ISS. GO; GO:0006605; P:protein targeting; ISS. GO; GO:0006605; P:regulation of transcription from Pol II pro. InterPro; IPR006933; HAP1 N. InterPro; IPR006933; HAP1 N. InterPro; IPR010978; tRNA binding_arm. FP04849; HAP1 N; I. Fram; PP04849; HAP1 N; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Okazeki N., Kikuno R., Ohara R., Inamoto S., Aizawa H., Yuasa S., Makajima D., Nagase T., Ohara O., Koga H.; "Predivtion of the coding sequences of mouse homologues of KIAA ger II. The complete nucleotide sequences of 400 mouse KIAA-homologous cDNAs identified by screening of terminal sequences of cDNA clones randomly sampled from size-fractionated libraries."; DNA Ref. 10:35-48(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MKIAA1042 protein (Fragment)
Name=mKIAA1042;
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01-JUN-2003 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                              947
(Rel. 41, Created)
(Rel. 41, Last sequence update)
(Rel. 45, Last annotation update)
(Rel. 45, Last annotation (RRP)
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                                                                                                                 PRT;
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                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical protein.
OrderedLocusNames=ACIAD1133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q6FD44 PRELIMINARY;
Q6FD44;
05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
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NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no we modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed.
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                                                                                                                                    Ornston
                                                                                                                                                                                                                                                                                                                                     Acinetobacter sp. (strain ADP1).
Bacteria; Proteobacteria; Gammaproteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR002610; Rhomboid_like.
Pfam; PF01694; Rhomboid; 1.
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                                                                               ADP1,
                                                                                                                                                                                        Barbe V.
                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                           Moraxellaceae; Acinetobacter.
NCBI_TaxID=62977;
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MEDLINE=98324821; PubMed=9662444; DOI=10.1016/S0014-5793(98)00622-X;
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    (Fragment)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: May be involved in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52
E FROM N.A.
1., Vallenet D., Fonknechten N., Kreimeyer A., Oztas S.,
2., Cruveiller S., Robert C., Duprat S., Wincker P.,
1.N., Weissenbach J., Marliere P., Cohen G.N., Medigue C.;
2 features revealed by the genome sequence of Acinetobacter sp.
3 versatile and naturally transformation competent bacterium.";
3 c Acids Res. 0:0-0(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MRAPVI 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 5; Conserv
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      Issued Patents AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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US-09-489-039A-8906
US-09-107-532A-6688
US-09-107-532A-66010
US-09-538-092-272
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US-09-538-092-617
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Sequence 23944, A
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Sequence 385, App
Sequence 643, App
Sequence 605, App
Sequence 8906, Ap
Sequence 13013, App
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Sequence 611, App
Sequence 611, App
Sequence 617, App
Sequence 617, App
Sequence 316, App
Sequence 316, App
Sequence 2786, Ap
Sequence 19964, A
Sequence 19964, A
Sequence 2678, A
Sequence 27882, A
Sequence 3552, Ap
Sequence 3552, Ap
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	9, Appli	3, Appli	42631, A	5838, Ap	11, Appl	403, App	5944, Ap	14433, A	8, Appli	4563, Ap	4676, Ap	575, App	888, App	575, App	888, App	575, App	888, App	A. 10.0

ALIGNMENTS

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Sequence 23944, Application US/09252991A

Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: MATC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO F
TITLE REPRENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 23944
LENGTH: 973
TYPE: DPT
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US-09-248-796A-16460
Sequence 16460, Application US/09248796A

Sequence 16460, Application US/09248796A

Patent No. 6747137

Patent No. 6747137

Patent INFORMATION:

SEQUENCES RELATING TO CANDIDA ALBICAN

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN

TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 107196.132

CURRENT APPLICATION NUMBER: US/09/248,796A

CURRENT FILING DATE: 1999-02-12

PRIOR APPLICATION NUMBER: US 60/074,725

PRIOR APPLICATION NUMBER: US 60/096,409

PRIOR APPLICATION NUMBER: US 60/096,409

PRIOR FILING DATE: 1998-08-13

NUMBER OF SEQ ID NOS: 28208

SEQ ID NO 16460

LENGTH: 229
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Pred. No. 4e+02;
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Query Match
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Watches 5; Conserve
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Watches 5; Conserve
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US-09-711-164-385
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APPLICANT: Porsyth, R. Allyn
APPLICANT: Porsyth, R. Allyn
APPLICANT: Oblsen, Kari
APPLICANT: 29skind, Judith
TITLE OF INVENTION: GENES ESSENTIAL FOR MICROBIAL PROLIFERATION AND ANTISENSE THERET
FILE REFERENCE: ELITTA.008A
CURRENT APPLICATION NUMBER: US/09/711,164
CURRENT FILING DATE: 2000-11-09
PRIOR APPLICATION NUMBER: US 60/164415
PRIOR APPLICATION NUMBER: US 60/164415
PRIOR FILING DATE: 1999-11-9
SUPURBER OF SEQ ID NOS: 469
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 385
LENGTH: 286
                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Griffais, R.
APPLICANT: Griffais, R.
TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments
TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, preve
TITLE OF INVENTION: and treatment of infection
FILE REFERENCE: 9710-003-99
CURRENT APPLICATION UNMBER: US/09/198,452A
CURRENT APPLICATION UNMBER: US/09/198,452A
NUMBER OF SEQ ID NOS: 6849
SEQ ID NOS: 6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Séquence 643, App.
Patent No. 655929
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                                                                                                                                                                                                                         TYPE: PRT ORGANISM: Chlamydia pneumoniae
                                                                                                                                                                                                                                                                 LENGTH: 350
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nes 5; Conserv
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                                                                     109 LRAPVI 114
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                                                                                                      1 MRAPVI 6
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                                                                                                                                         Conservative
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                                                                                                                                                       Score 26; DB 4;
Pred. No. 3.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Mismatches
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Pred. No. 3.1e+02;
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Pred. No. 2.4e+02;
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APPLICANT: Kalman, Sue
APPLICANT: Davis, Ronald
APPLICANT: Davis, Ronald
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Chlamydia Pneumoniae Genome Sequence
FILE REFERENCE: 018941-000411US
CURRENT APPLICATION NUMBER: US/09/438,185A
CURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION NUMBER: US 60/108,279
PRIOR APPLICATION NUMBER: US 60/108,279
PRIOR APPLICATION NUMBER: US 60/128,606
PRIOR FILING DATE: 1998-04-08
NUMBER OF SEQ ID NOS: 1074
NUMBER: Estero for windows Version 3 0
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                                                                                                                                                    RESULT 7
US-09-252-991A-28425
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Best Local Similarity
"arches 5; Conserva
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US-09-438-185A-605
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APPLICANT: GATY Breton et. al

APPLICANT: GATY Breton et. al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING '

TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 2709.2004001

CURRENT APPLICATION NUMBER: US(09/489,039A

CURRENT FILING DATE: 2000-01-27

PRIOR APPLICATION NUMBER: US 60/117,747

PRIOR APPLICATION NUMBER: US 60/117,747

PRIOR FILING DATE: 1999-01-29

NUMBER OF SEQ ID NOS: 14342

SEQ ID NO 8906
                Sequence 28425, Application US/09252991A

RATERIA NO. 6551795

GENERAL INFORMATION:

APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 605
LENGTH: 350
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Best Local
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FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
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tes 5; Conserv
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83.3%; Pred. No. 5.3e+02;
tive 1; Mismatches 0;
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CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 2845
LENGTH: 119
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US-09-107-532A-6688
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US-09-107-532A-6688
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Patent No. 6583275
GENERAL INFORMATION:
APPLICANT: Lynn A Dougette-Stamm and David Bush
APPLICANT: Lynn A DOUGETC ACID AND AMINO ACID SEQUENCES RELATING TO
ENTEROCOCCUS FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS;
STATE OF SEQUENCES: 7310
                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/107,532A
FILING DATE: 30-Jun-1998
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 60/085,598
FILING DATE: 14 May 1998
APPLICATION NUMBER: 60/051571
FILING DATE: July 2, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REFERENCE/DOCKET NUMBER: GTC-012
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPAX: (781)893-8277
INFORMATION FOR SEQ ID NO: 6688:
SEQUENCE CHARACTERISTICS:
LENGTH 120 Applied Seide
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Best Local :
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Local Similarity 83.3%;
hes 5; Conservative
                                                                                                                               MOLECULE TYPE: protein HYPOTHETICAL: YES ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: CD/ROM ISO9660
                     SEQUENCE DESCRIPTION: SEQ ID NO: 6688:
                                                                                       FEATURE:
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                                                                                                                                                                                                 LENGTH: 120 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                        NAME/KEY: misc_feature LOCATION: (B) LOCATION 1.
                                                                                                          ORGANISM: Enterococcus faecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: <Unknown>
SOFTWARE: ASCII
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Pred. No. 2e+02;
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US-09-489-039A-8244
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                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: GATY BRETON et. al
APPLICANT: GATY BRETON et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PNEUMONIAB FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709-2004001
CURRENT APPLICATION NUMBER: 000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR PILING DATE: 1999-01-29
                                                                 Query Match
Best Local S
Matches 5
                                                                                                                                               NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 8244
LENGTH: 222
TYPE: PRT
ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 13013
LENGTH: 197
TYPE: PRT
ORGANISM: Myxococcus xanthus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                                                                                          Sequence 8244, Application US/09489039A Patent No. 6610836
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4; Conserve
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                                                               86.2%; Score 25; DB 4; L
100.0%; Pred. No. 3.9e+02;
live 0; Mismatches 0;
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Pred. No. 3.5e+02;
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US-09-538-092-272 ; Sequence 272, Application US/09538092 ; Patent No. 6753314

RESULT 11

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GENERAL INFORMATION:

APPLICANT: Lynn Doucette-Stamm et al
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO AC:
TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOI
FILE REFERENCE: 032796-032
CURRENT APPLICATION NUMBER: US/09/134,000C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/055,778
PRIOR PILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 6812
SOFTWARE: Patentin version 3.1
SEQ ID NO 6010
LENGTH: 223
TYPE: PRT
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                                                                                                                                                                                            RESULT 13
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US-09-134-000C-6010
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Best Local S
Matches 5
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SOFTWARE: CuraPatSeqFormatter Version 0.9
SEQ ID NO 272
LENGTH: 222
Type: """
Sequence 617, Application US/09538092
Patent No. 6753314
GENERAL INFORMATION:
APPLICANT: Giot, Loic
APPLICANT: Manefield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and
FILE REFERENCE: 15966-542
CURRENT APPLICATION NUMBER: US/09/538,092
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
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CURRENT FILING DATE: 2000-03-29
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR FILING DATE: 1999-04-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/178,965 PRIOR FILING DATE: 2000-02-01
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APPLICANT: Mansfield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
FILE REFERENCE: 15966-542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: Polypeptide Accession Number YFL060C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Enterococcus faecalis
                                                                                                                                                                                                                                                                                                                                Local Similarity 100.0%; nes 5; Conservative (
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83.3%;
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Pred. No. 3.9e+02;
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PRIOR APPLICATION NUMBER: 60/127,352
PRIOR FILING DATE: 1999-04-01
PRIOR PPLICATION NUMBER: 60/178,965
PRIOR FILING DATE: 2000-02-01
NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CuraPatSeqFormatter Version 0.
SEQ ID NO 617
LENGTH: 224
TYPE: PRT
                               NUMBER OF SEQ ID NOS: 8252
SEQ ID NO 5866
LENGTH: 239
TYPE: PRT
ORGANISM: Acinetobacter baumannii
US-09-328-352-5866
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US-09-328-352-5866
; Sequence 5866, Application US/09328352
; Patent No. 6562958
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                                                                                                                                                GENERAL INFORMATION:
APPLICANT: GATY L. Breton et al.
APPLICANT: GATY L. Breton et al.
TITLE OF INVENTION: NUCLEIC ACID AMD AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Klebsiella pneumoniae
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NAME/KEY: misc_feature
LOCATION: (0)...(0)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity tes 5; Conserv
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Score 25;
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Best Local Similarity 66.7%; Pred. No. 4.3e+02; Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0; Qy 1 MRAPVI 6

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Search completed: September 9, 2005, 15:57:55

Job time: 26 secs
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Result
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Perfect score:
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Maximum Match 100%
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

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4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

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US-10-610-843B-4
US-10-611-586C-2
US-10-680-922-4
US-10-032-037B-204
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US-10-032-037B-204
US-10-032-037B-25
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Sequence 8, Appli
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Sequence 204, App
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Sequence 204, App
Sequence 25, Appl
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ALIGNMENTS

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Sequence 8, Application US/10032037B

Publication No. US20040001822A1

GENERAL INFORMATION:
APPLICANT: Bio-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITODES CONTAINING SULFATED TITLE OF INVENTION: MOLETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF FILE REFERENCE: 10793/44

CURRENT APPLICATION NUMBER: US/10/032,037B

CURRENT FILING DATE: 2001-12-31

PRIOR APPLICATION NUMBER: 60/258,948

PRIOR PILING DATE: 2000-12-29

NUMBER OF SEQ ID NOS: 204

SEQ ID NOS SEQ ID NOS: 204

SEQ ID NOS: PASTSEQ for Windows Version 3.0

TYPE: PRT

TYPE: PRT
RESULT 2
US-10-029-988B-8
; Sequence 8, Application US/10029988B
; Publication No. US20040001839A1
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Matches
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RESULT 4
US-10-029-926B-8
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US-10-032-423A-8
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CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 2000-12-29
NUMBER OF SEQ ID NOS: 204
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 8
LENGTH: 6
          APPLICANT: HAGAY, et al.

APPLICANT: HAGAY, et al.

TITLE OF INVENTION: SPECIFIC HUMAN ANTIBODIES FOR SELECTIVE CANCER THERAPY
FILE REFERENCE: 10793/50

CURRENT APPLICATION NUMBER: US/10/029,926B

CURRENT FILING DATE: 2001-12-31

PRIOR APPLICATION NUMBER: 60/258,948

PRIOR FILING DATE: 12/29/2000

NUMBER OF SEQ ID NOS: 203

SOFTWARE: FASTSEQ for Windows Version 3.0

SEQ ID NO 8

LENGTH: 6
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Publication No. US20040002450A1
GENERAL INFORMATION:
APPLICANT: BLO-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED
TITLE OF INVENTION: MOLETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
FILE REFERENCE: 10793/45
CURRENT APPLICATION NUMBER: US/10/032,423A
CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 12/39/2000
NUMBER OF SEQ ID NOS: 204
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Best Local Similarity luv.
                                                                                                                                                                                                                                      Sequence 8, Application US/10029926B Publication No. US20040073011A1 GENERAL INFORMATION:
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Best Local Similarity
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TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED
TITLE OF INVENTION: MOLETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
FILE REFERENCE: 10793/46
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ORGANISM: Homo sapiens
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Pred. No.
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Pred. No. 1.6e+06;
); Mismatches 0;
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US-10-880-922-4
; Sequence 4, Application US/10880922
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Sequence 2, Application US/10611588C

Publication No. US20040208877A1

GENERAL INFORMATION:

APPLICANT: Levanon, et al.

TITLE OF INVENTION: ANTIBODIES AND USES THEREOF

FILE REFERENCE: 10793/70

CURRENT APPLICATION NUMBER: US/10/611,588C

CURRENT FILING DATE: 2003-06-30

PRIOR APPLICATION NUMBER: 60/393,491

PRIOR FILING DATE: 2002-07-01

NUMBER OF SEQ ID NOS: 8

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 2

LENGTH: 6
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CURRENT APPLICATION NUMBER: US/10/610,843B

CURRENT FILING DATE: 2003-06-30

PRIOR APPLICATION NUMBER: 60/393,453

PRIOR FILING DATE: 2002-07-01

NUMBER OF SEQ ID NOS: 8

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 4
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US-10-611-588C-2
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Publication No. US20040202665A1
GENERAL INFORMATION:
APPLICANT: Lazarovits, et al.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPEUTIC TREATMENT
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Best Local Similarity 100.0%;
Matches 6; Conservative 0
                                Query Match
Best Local Similarity
Matches 6; Conserv
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Best Local Similarity 100.0%;
Matches 6; Conservative 0
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                                    Score 29; DB 16;
Pred. No. 1.6e+06;
); Mismatches 0;
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Pred. No. 1.6e+06;
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Pred. No. 1.6e+06;
); Mismatches 0;
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                                                                     Length 6;
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Publication No. US20050069955A1

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RESULT 9
US-10-029-988B-204
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US-10-032-037B-204
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Sequence 204, Application US/10029988B
Publication No. US20040001839A1
GENERAL INFORMATION:
APPLICANT: Bio-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED
TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 204, Application US/10032037B

Publication No. US20040001822A1

GENERAL INFORMATION:

APPLICANT: Bio-Technology General Corp.

TITLE OF INVENTION: V17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED

TITLE OF INVENTION: MOLETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF

FILE REFERENCE: 10793/44

CURRENT FILING DATE: 2001-12-31

PRIOR APPLICATION NUMBER: 60/258,948

PRIOR PILING DATE: 2000-12-29

NUMBER OF SED IN NOS. 204
                                                                                                                                                                                                                                                                                                                                                                                                                            SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 204
LENGTH: 266
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Best Local (
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APPLICANT: KANFI, YARIV
TITLE OF INVENTION: ANTIBODIES AND USES THEREOF
FILE REFERENCE: 10793-143
CURRENT APPLICATION NUMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
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OTHER INFORMATION: Description
OTHER INFORMATION: peptide
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SZANTON, ESTHER
HAGAY, YOCHEVED
BEN-LEVY, RACHEL
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Pred. No. 1.6e+06;
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US-10-032-037B-25
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US-10-032-423A-204
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                                                             Sequence 25, Application US/10032037B

Publication No. US20040001822A1

GENERAL INFORMATION:

APPLICATION:

APPLICATION:

Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED TITLE OF INVENTION: WOISTIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF FILE REFERENCE: 10793/44

CURRENT APPLICATION NUMBER: US/10/032,037B

CURRENT FILING DATE: 2001-12-31

PRIOR APPLICATION NUMBER: 60/258,948

PRIOR FILING DATE: 2000-12-29

NUMBER OF SEQ ID NOS: 204

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 25

LENGTH: 277
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Publication No. US20040002450A1
GENERAL INFORMATION:
APPLICANT: Bio-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF FILE REFERENCE: 10793/45
CURRENT APPLICATION NUMBER: US/10/032,423A
CURRENT PILING DATE: 2001-12-31
PRIOR APPLICATION UNMBER: 60/258,948
PRIOR APPLICATION UNMBER: 60/258,948
PRIOR FILING DATE: 12/29/2000
NUMBER OF SEQ ID NOS: 204
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 204
LENGTH: 266
TYPE: DATE: 12/266
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                                         LENGTH: 27
TYPE: PRT
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CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 2000-12-29
NUMBER OF SEQ ID NOS: 204
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                      ORGANISM: Homo sapiens
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TYPE: PRT
ORGANISM: Homo sapiens
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Local Similarity 100.0%; Pred. No. 2.2e+02;
nes 6; Conservative 0; Mismatches 0;
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RESULT 14
US-10-029-926B-25
; Sequence 25, Application US/10029926B
; Publication No. US20040073011A1
                                                                                                                                                                                                                                                                                  APPLICANT: BIO-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EDITOPES CONTAINING SULFATED TITLE OF INVENTION: MOIETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF FILE REFERENCE: 10793/45
CURRENT APPLICATION NUMBER: US/10/032,423A
CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 12/29/2000
NUMBER OF SEQ ID NOS: 204
SOCTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
LENGTH: 277
TYPE: PRT
ORGANISM: Homo sapiens
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US-10-032-423A-25
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US-10-029-988B-25
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
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Publication No. US20040001839A1
GENERAL INFORMATION:
APPLICANT: Bio-Technology General Corp.
TITLE OF INVENTION: Y17-ISOLATED MOLECULES COMPRISING EPITOPES CONTAINING SULFATED
TITLE OF INVENTION: MOLETIES, ANTIBODIES TO SUCH EPITOPES, AND USES THEREOF
FILE REFERENCE: 10793/46
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CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 2000-12-29
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TYPE: PRT
ORGANISM: Homo sapiens
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APPLICANT: HAGAY, et al.
TITLE OF INVENTION: SPECIFIC HUMAN ANTIBODIES FOR SELECTIVE CANCER THERAPY
FILE REFERENCE: 10793/50
CURRENT APPLICATION NUMBER: US/10/029,926B
CURRENT FILING DATE: 2001-12-31
PRIOR PPLICATION NUMBER: 60/258,948
PRIOR FILING DATE: 12/29/2000
NUMBER OF SEQ ID NOS: 203
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
LENGTH: 277
TYPE: PRT
GRAANISM: Homo sapiens
US-10-029-926B-25
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Search completed: September Job time: 92.5 secs
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US-10-610-843B-1
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CURRENT FILING DATE: 2003-06-30
PRIOR APPLICATION NUMBER: 60/393,453
PRIOR FILING DATE: 2002-07-01
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FeatSEQ for Windows Version 3.0
SEQ ID NO 1
LENGTH: 277
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Best Local Similarity 100.0%;
Matches 6; Conservative (
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPEUTIC TREATMENT
FILE REFERENCE: 10793/72
                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
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Pred. No. 2.2e+02;
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Pred. No. 2.2e+02;
Mismatches 0;
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Copyright (c) 1993 - 2005 Compugen Ltd.
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SUMMARIES

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Claim 43; Page 132; Opp; English.

The invention relates to an isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune disease, thrombosis, restenosis, metastasis, growth and/or replication of

Novel isolated physiological inflammation, diseases, and	πк	(BIOT-)	29-DEC- 29-DEC-	31-DEC-2001;	11-JUL-2002	WO200253700-A2	Homo s	Human; epi hypervaria leukaemia; myocardial sulphated	Human epitope	04-DEC-2002	ABG92031;	RESULT 1 ABG92031 ID ABG92031 XX		55	43	42	41	39	38	3 6	Ω, Y	u Σ	32	31	29	28	27	y
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and important in metastasis and and amortant in atory or cardiovascular	Nimrod A, Mar-Haim H; Peretz T, Levanon A;							<pre>inflammation; metastasis; combosis; restenosis; ar disease; abnormal platelet function; interaction.</pre>						Adf69094 Human MP5	Platel	Mutate	Aar56664 Mutant pl Aar51116 Platelet	Human	ADD/8235 AMILIO ACT Aay49933 Human gly	Amino	Abb78236 Amino aci	Amino	Amino	Abb78240 Amino aci	Amino a	368 45 kDa	Abb78245 Amino aci	8043 Amino

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                              A human antithrombin III (AT III) mutant, comprising a carboxy-terminal sulphated tyrosine peptide extension, i.e. the present peptide, can be used to prevent and/or treat thrombotic diseases
                                                                 Sequence 13
                                                                                                                                                                                                               Human antithrombin III mutant with C-terminal sulphated tyrosine - useful for treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                            JP09071600-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
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                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                              WPI; 1997-231188/21.
                                                                                                                                                                                                                                                                                                                            06-SEP-1995;
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Similarity 7; Conserv
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 Conservative
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III"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prevention; treatment; thrombosis; disease
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                Score 44; DB 2; Length 13; Pred. No. 0.74;
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                                                                                                                                                                                                             peptide containing a prevention of thrombotic
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Query Match Best Local Similarity

100.0%;

Score 44; DB 5; Pred. No. 0.74;

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RESULT 3
ABG92050
ID ABG9
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                          cc important in physiological phenomena such as cell rolling, metastasis and cl inflammation, where the epitope is capable of being bound by an antibody, ct its antigen-binding fragment or its complex comprising at least one cc antibody or its binding fragment having a first hypervariable region. The cd isease, thrombosis, restenosis, metastasis, growth and/or replication of ct tumour or leukaemia cells, increase in number of tumour or leukaemia cc cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-platelet and/or cells-platelet adhesion or aggregation, for increasing completed and/or cells to damage by anti-disease, anti-cancer or anti-cc leukaemia agents, or for decreasing the number of tumour or leukaemia cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diagnosing and treating cd iseases such as cancer, leukaemia, autoimmune diseases, inflammatory cd iseases, cardiovascular diseases such as myocardial infarction, cretinopathic diseases caused by sulphated tyrosine-dependent protein-cc of the invention sequence represents a human epitope sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; epitope; cancer; tumour; cell rolling; inflammation; metastasis; hypervariable region; autoimmune disease; thrombosis; restenosis; leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal platelet function; sulphated tyrosine-dependent protein-protein interaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardidiseases, and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lazarovits J, Hagai Y, Szanthon E, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-DEC-2001; 2001WO-US049442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 60; Opp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-DEC-2000; 2000US-00751181.
29-DEC-2000; 2000US-0258948P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human epitope sequence #23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
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Amit B, Kooperman L,
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Peretz T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cardiovascular
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                                                                                                                                                                          The invention relates to an isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune disease, thrombosis, restenosis, metastasis, growth and/or replication of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, cell-matrix, platelet-matrix, platelet-platelet and/or cell-platelet adhesion or aggregation, for increasing mortality of tumour or leukaemia cells, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diseases, inflammatory diseases such as cancer, leukaemia, autoimmune diseases, inflammatory cardiovascular diseases such as myocardial infarction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                               protein interactions. of the invention
                                                                                   retinopathic diseases and other diseases mediated by abnormal function and diseases caused by sulphated tyrosine-dependent protein interactions. This sequence represents a human epitop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-DEC-2000; 2000US-00751181.
29-DEC-2000; 2000US-0258948P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 41; Page 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammation,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                J, Hagai Y,
, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treating autoimmune, inflammatory or cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; qq0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plaksin D, Vogel T, Amit B, Kooperman L,
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Peretz T,
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                                                                                             epitope
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Levanon
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                                                                                                                                                  platelet
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Query Match

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Score

44; DB 5

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RESULT 5
ADJ57380
                                                                                                                 Query Match
Best Local :
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                                                                                                                                                                                                                                                    The present sequence is that of a peptide sequence from human glycoprotein GPIb-alpha. The peptide is sulfated at the Tyr residue at position 4 of the sequence. It was one of a set of sulfated and non-sulfated peptides used in an example from the invention to determine the epitope for scFv antibody L32 ADJ57363. The results showed that the L32 epitope is located between amino acids 1 and 17 of mature P-selectin glycoprotein ligand-1 (PSGL-1) in which there is a cluster of negatively charged amino acids. The invention provides antibodies or their fragments that have the binding specificity of L32. These are useful in therapeutic, diagnostic, prognostic or staging methods for diseases such as cancer, including tumour growth and metastasis, leukaemia, autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel antibody or its fragment that binds to an epitope of P-Selectin-Glycoprotein Ligand-1, useful for diagnosing/prognosing inflammation, infection, auto-immune disease, metastasis, tumor/leukemia cell in
                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 8;
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Hoch Mar- Chaim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-JAN-2004.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
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4 YDYYPEE 10
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                                                                                          Similarity 7; Conserv
                                                                                                                                                                                                                                       and inflammatory disease.
                                          YDYYPEE 7
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                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        56; 106pp; English.
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                                                                                     100.0%; Score 44; Di
100.0%; Pred. No. 0.
Live 0; Mismatches
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                                                                                                                                     DB 8; Length 13;
                                                                                                              .74;
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RESULT 7
AAR13137
ID AAR1
XX AAR1
AC AAR1
XC AAR1
XC AAR1
XC AAR1
XC AGP1
CC AC GP11
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Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequences given in AAR38574-82 represents polypeptide fragments derived from platelet glycoprotein Ib-alpha (GPIb-alpha). Sub- fragments such as these may be used in the construction of a bifunctional antithrombotic molecule. The bifunctional molecule inhibits activation and/or adhesion of platelets to a damaged or diseased vascular surface. The molecule contains two linked domains, the first inhibits binding of thrombin to GPIb-alpha, and the other inhibiting binding of von Willebrand factor (vWF) to GPIb-alpha. The molecule may be used to inhibit thrombosis and cell activation of endothelial cells, fibroblasts or smooth muscle cells. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bifunctional antithrombotic molecule and antithrombotic polypeptide - used to inhibit thrombosis, cell activation and tumour metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Platelet; glycoprotein Ib-alpha; GPIb-alpha; von Willebrand factor; bifunctional antithrombotic molecule; inhibition; activation; vWF; adhesion; vascular surface; thrombin; thrombosis; endothelial cells; fibroblasts; smooth muscle cells.
                                                                                                                       GPIb alpha peptide fragment
                                                                                                                                                                              25-MAR-2003
01-OCT-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14
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                                       glycoalicin; thrombosis.
                                                           Von Willebrand factor; vWF; platelet membrane glycoprotein Ib;
                                                                                                                                                                                                                                                                                                              AAR13137 standard; peptide; 15 AA.
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RESULT 8
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Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The peptide corresponds to residues 271-285 of the N-terminus of glycoalicin, a water sol. proteolytic fragment of GPIb alpha. It may be linked to a second peptide from the 45 kD N-terminal tryptic fragment of GPIb alpha. The peptide inhibits binding of vWF to GPIb. It can be used to inhibit activation, aggregation and/or adhesion of platelets, esp. for inhibition of thrombosis. Truncated versions of the peptide may also be used, esp. AAS 281-285. See also AAR13128-R13138. (Updated on 25-MAR-2003)
                                                                                                                                                                Platelet; glycoprotein Ib-alpha; GPIb-alpha; von Willebrand factor; bifunctional antithrombotic molecule; inhibition; activation; vWF; adhesion; vascular surface; thrombin; thrombosis; endothelial cells; fibroblasts; smooth muscle cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPIb alpha peptide fragment - inhibits to platelet membrane glyco-protein Ib,
                                                                                                                                            Synthetic
                                                                                                                                                                                                                        GPIb-alpha-derived polypeptide subfragment 271-285
                                                                                                                                                                                                                                               25-MAR-2003
05-NOV-1993
                                                                                                                                                                                                                                                                               AAR38577;
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Ware JL;
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14-NOV-1990;
         Ruggeri ZM,
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         Ware JL,
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                                                                                                                                                                                                                                                                                                    peptide; 15
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                                                          A human antithrombin III (AT III) mutant, comprising a carboxy-terminal sulphated tyrosine peptide extension, i.e. the present peptide, can be used to prevent and/or treat thrombotic diseases
                                                                                                                                                                                                                                                       Human antithrombin sulphated tyrosine
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                                                                                                                                                                     Disclosure;
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III"
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                                                                                                                                                                  6; 11pp;
                                                                                                                                                                                                                                                       III mutant with C-terminal
- useful for treatment and
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                                                                                                                                                                                                                                                    peptide containing a prevention of thrombotic
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Seguence 16

Sequence 18

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The invention relates to an isolated epitope present on cancer cells and CC important in physiological phenomena such as cell rolling, metastasis and CC inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one CC antibody or its binding fragment having a first hypervariable region. The CC epitopes are useful for inhibiting cell rolling, inflammation, autoimmune CC disease, thrombosis, restenosis, metastasis, growth and/or replication of CC tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia CC cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-cC platelet and/or cell-platelet adhesion or aggregation, for increasing CC mortality of tumour or leukaemia cells, for increasing the susceptibility CC of diseased cells to damage by anti-disease, anti-cancer or anti-CC mentioned purposes. The epitopes are useful for diagnosing and treating CC diseases such as cancer, leukaemia, autoimmune diseases, inflammatory CC retinopathic diseases and other diseases mediated by abnormal platelet function and diseases caused by sulphated tyrosine-dependent protein-protein interactions. This sequence represents a human epitope sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or carding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal pl
                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Szanthon E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lazarovits J, Hagai
Szanthon E, Richter
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                                                             The invention relates to an isolated epitope present on cancer cells and C important in physiological phenomena such as cell rolling, metastasis and c inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune cd leease, thrombosis, restenosis, metastasis, growth and/or replication of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet platelet and/or cell-platelet adhesion or aggregation, for increasing comortality of tumour or leukaemia cells, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diseases, inflammatory calseases such as cancer, leukaemia, autoimmune diseases, inflammatory customental diseases and other diseases mediated by abnormal platelet function and diseases caused by sulphated tyrostine-dependent protein-protein interactions. This sequence represents a human epitope sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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Matches 7
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29-DEC-2000; 2000US-0258948P.
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, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                The invention relates to an isolated epitope present on cancer cells and CC important in physiological phenomena such as cell rolling, metastasis and CC inflammation, where the epitope is capable of being bound by an antibody, CC its antigen-binding fragment or its complex comprising at least one CC antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune CC disease, thrombosis, restenosis, metastasis, growth and/or replication of CC tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia CC cells in a patient, cell-cell, cell-matrix, platelet-matrix, platelet-matrix, platelet-cells in a patient, or leukaemia cells, for increasing the susceptibility CC of diseased cells to damage by anti-disease, anti-cancer or anti-cells in a patient, or in the manufacture of a medicament for the above CC mentioned purposes. The epitopes are useful for diagnosing and treating CC diseases such as cancer, leukaemia, autoimmune diseases, inflammatory CC diseases, cardiovascular diseases such as myocardial infarction, CC retinopathic diseases and other diseases mediated by abnormal platelet function and diseases caused by sulphated tyrosine-dependent protein-cell for the invention. This sequence represents a human epitope sequence
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29-DEC-2000; 2000US-0258948P.
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Peretz T,
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Levanon A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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RESULT 13
ADJ57379
ID J57379
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Best Local :
                                                                             example from the invention to determine the epitope for scFv antibody L32 ADJ57363. The results showed that the L32 epitope is located between amino acids 1 and 17 of mature P-selectin glycoprotein ligand-1 (PSGL-1) in which there is a cluster of negatively charged amino acids. The invention provides antibodies or their fragments that have the binding specificity of L32. These are useful in therapeutic, diagnostic, prognostic or staging methods for diseases such as cancer, including tumour growth and metastasis, leukaemia, autoimmune disease and
                                                                                                                                                                                                                                                                                              The present sequence is that of a peptide sequence from human glycoprotein GPIb-alpha. The peptide may be non-sulfated or su one or more of the Tyr residues at positions 9, 11 and 12 of usequence. These sulfated and non-sulfated peptides were used sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel antibody or its fragment that binds to an epitope of P-Selectin-Glycoprotein Ligand-1, useful for diagnosing/prognosing inflammation, infection, auto-immune disease, metastasis, tumor/leukemia cell in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-2002; 2002US-00189032
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 8;
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Hoch Mar- Chaim H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUN-2003; 2003WO-US020602
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SAVI-) SAVIENT PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ø
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7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ben-Levy R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antibody; scFv; cytostatic; antiinflammatory;
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12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "Optionally sulfated"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note= "Optionally sulfated"
                                                                                                                                                                                                                                                                                                                                                                                                                                              106pp; English
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Pred. No.
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Sequence

18

Sequence 19

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CC inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one comprising the mumber of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, for increasing the susceptibility comprising at least of the comprising the number of tumour or leukaemia cells in a patient, or in the manufacture of a medicament for the above comprising and treating comprising and treating comprising and treating comprising and treating comprising and compating and compating
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to an isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, where the epitope is capable of being bound by an antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel isolated epitope present on cancer cells and important physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardicinflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypervariable region; autoimmune disease; thrombosis; re leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal pl
                                          protein interact of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lazarovits
Szanthon E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
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29-DEC-2000;
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7; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and cancer.
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, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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2000US-0258948P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer; tumour; cell rolling; inflammation;
egion; autoimmune disease; thrombosis; rester
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100.0%; Pr
2+ive 0;
                                                                 caused by sulphated tyrosine-dependent protein-
This sequence represents a human ----
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Amit B, Kooperman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       opathic disease; abnormal platelet function; protein-protein interaction.
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ooperman L,
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Best Local S
Matches 7
cells in a patient, or in the manufacture of a medicament for the above mentioned purposes. The epitopes are useful for diagnosing and treating diseases such as cancer, leukaemia, autoimmune diseases, inflammatory diseases, cardiovascular diseases such as myocardial infarction, retinopathic diseases and other diseases mediated by abnormal platelet function and diseases caused by sulphated tyrosine-dependent protein protein interactions. This sequence represents a human epitope sequence of the invention
                                                                                                                                                                                                                                                              The invention relates to an isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, where the epitope is capable of being bound by an antibody, its antigen-binding fragment or its complex comprising at least one antibody or its binding fragment having a first hypervariable region. The epitopes are useful for inhibiting cell rolling, inflammation, autoimmune disease, thrombosis, restenosis, metastasis, growth and/or replication of tumour or leukaemia cells, increase in number of tumour or leukaemia cells, increase in number of tumour or leukaemia platelet and/or cell-cell, cell-matrix, platelet-matrix, platelet-glatelet and/or cell-platelet adhesion or aggregation, for increasing the susceptibility of diseased cells to damage by anti-disease, anti-cancer or anti-leukaemia agents, or for decreasing the number of tumour or leukaemia cells, the number of tumour or leukaemia cells to damage by anti-disease, anti-cancer for the above.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; epitope; cancer; tumour; cell rolling; inflammation; metastasis; hypervariable region; autoimmune disease; thrombosis; restenosis; leukaemia; inflammatory disease; cardiovascular disease; myocardial infarction; retinopathic disease; abnormal platelet function; sulphated tyrosine-dependent protein-protein interaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel isolated epitope present on cancer cells and important in physiological phenomena such as cell rolling, metastasis and inflammation, for treating autoimmune, inflammatory or cardioval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lazarovits J, Hagai Y, Szanthon E, Richter T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 72; Opp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-DEC-2000; 2000US-00751181.
29-DEC-2000; 2000US-0258948P.
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Amit B, Kooperman L,
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Pred. No. 1.1;
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, Peretz T,
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Search completed: September Job time: 108.45 secs

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2005, 16:25:45

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Perfect score:
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Copyright (c) 1993 - 2005 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	φ	8	7	თ	ហ	4.	w	N	1	Regult No.
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77.3	77.3	77.3	77.3	77.3		79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5		79.5		81.8	81.8	84.1	84.1	84.1	84.1	84.1	84.1	100.0	Query Match
139	139	139	125	125	3411	3411	1483	1163	438	370	343	290	248	247	246	246	212	212	141	956	364	1805	980	803	802	547	344	626	Length
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A;Note: variant D C_i Comment: Glycoprotein Ib (GPIb), a surface membrane protein of platelets, participates C_i Comment: Platelet activation apparently involves disruption of the macromolecular comp

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1380	961	672	465	431	431	427	423	421	324	297	274	263	209	180
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tor-aden	nypormerical proce	beta-D-galactosida	hypothetical prote	histidinol dehydro	histidinol dehydro	hypothetical prote	hypothetical prote	hypothetical prote	gluconate 2-dehydr	degenerin 1 (DEG-1	hypothetical prote	hypothetical prote	hypothetical prote	hypothetical prote

ALIGNMENTS
RESULT 1
NBHUIA
platelet glycoprotein Ib alpha chain precursor – human N;Alternate names: membrane glycoprotein Ib alpha chain
N;Contains: glycocalicin
C.Species: Homo sapiens (man)
C;Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 09-Jui-2004 C:Accession: A94174: A60435; A94173: S16945: I55355: A27075: A27102
R;Lopez, J.A.; Chung, D.W.; Fujikawa, K.; Hagen, F.S.; Papayannopoulou, T.; Roth, G.J.
Proc. Natl. Acad. Sci. U.S.A. 84, 5615-5619, 1987
A;Title: Cloning of the alpha-chain of human platelet glycoprotein Ib: a transmembrane : A;Reference number: A94174; MUID:87289655; PMID:3303030
A;Accession: A94174
A; Molecule type: mRNA
A;KeBlodes: 1-026 <luev 1-026="" <luev="" <luev<="" a:keblodes:="" a;keblodes:="" td=""></luev>
R; Wicki, A.N.; Walz, A.; Gerber-Huber, S.N.; Wenger, R.H.; Vornhagen, R.; Clemetson, K.
Thromb. Haemost. 61, 448-453, 1989
A;Title: isolation and characterization of human blood platelet mkNA and construction of d cloning of a GPIb coding cDNA insert.
A; Reference number: A60435; MUID:90020160; PMID:2799758
A;ACCEBBLOU: ACVISO A:ACCEBBLOU: ACVISO ACVISO A:ACCEBBLOU: ACVISO
A, Residues: 207-467 <wic></wic>
R;Titani, K.; Takio, K.; Handa, M.; Ruggeri, Z.M.
Proc. Natl. Acad. Sci. U.S.A. 84, 5610-5614, 1987 .A:Title: Amino acid sequence of the von Willebrand factor-binding domain of platelet me:
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A;Accession: A94173
A;Molecule type: protein A;Residues: 17-315 <tit></tit>
R;Hess, D.; Schaller, J.; Rickli, E.E.; Clemetson, K.J.
Eur. J. Biochem. 199, 389-393, 1991 A:Title: Identification of the disulphide bonds in human platelet glycocalicin.
A; Reference number: S16945; MUID:91301149; PMID:2070794
A;Status: preliminary
A;Molecule type: protein
R;Lopez, J.A.; Ludwig, B.H.; McCarthy, B.J.
Chem. 267, 10055-10061, 1992
A_i Title: Polymorphism of human glycoprotein ib alpha results from a variable number of tations.
A;Reference number: I55355; MUID:92250564; PMID:1577776
A;ACCESSION: 155355
A; MOLECULE TYPE: DNA A; MOLECULE TYPE: DNA
A;Cross-reterences: GB:S34436; NID:g249176; PIDN:AAB22152.1; PID:g249177

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C;Comment: Binding sites for v
C;Comment: Glycocalicin, which
C;Genetics:
A;Gene: GDB:GP1BA; GP1B
A;Cross-references: GDB:118806
A;Cross-references: GDB:118906
A;Map position: 17pter-17p12
C;Complex: heterodimer with pl
C;Superfamily: platelet glycop
C;Keywords: blood coagulation;
paraquat-inducible protein B VC1754 [imported] - Vibrio cholerae (strain N16961 sc C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: F82162
R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sell 1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae. A;Reference number: A82035; MUID:20406833; PMID:10952301
A;Accession: F82162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;94-116/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR3>F;117-140/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR4>F;117-144/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>F;141-114/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>F;165-188/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>F;189-212/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR7>F;379-430/Region: proline/threonine-rich y-residue repeats F;307-540/Domain: transmembrane #status predicted <TRM>F;37,175/Binding site: carbohydrate (Asn) (covalent) #status experimental F;308/Binding site: carbohydrate (Thr) (covalent) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:Q60980; GB:U36340; NID:g1244514; PIDN:AAA93256.1; PID:g12445A;Experimental source: erythroid cell
C;Comment: This protein is a member of the Krueppel family of transcription factors. It
C;Keywords: transcription factor; zinc finger
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A; Residues: 1-344 < CRO>
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C;Species: Mus musculus (house mouse)
C;Date: 13-Mar.1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C;Accession: JC6100
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                                                                                                                                                                                                                                                                     RESULT 3
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;Title: Isolation and characterization of the cDNA encoding BKLF/TBF-2, a major CACCC-b;Reference number: JC6100; MUID:96239526; PMID:8657145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Crossley, M.; Whitelaw, E.; Perkins, A.; Williams, G.; Pujiwara, Y.; Orkin, L. Cell. Biol. 16, 1695-1705, 1996
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I.; Sellers,
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                                                                   A;Gene: pl16
C;Superfamily: translation initiation factor eIF-3b
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A;Map position: 1
C;Superfamily: pq
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        Best Local
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A;Status: preliminary
A,Molecule type: DNA
A;Residues: 1-547 <HEI>
A;Cross-references: UNIPROT:Q9KR88; GB:AE004252; GB:AE003852; NID:g9656263; PIDN:AAF9490
A;Experimental source: serogroup O1; strain N16961; biotype El Tor
C;Genetics:
                  A;Molecule type: mRNA
A;Residues: 1-803 <KOY>
A;Cross-references: UNIPROT:Q8JZQ9
                                                                                    J. Biochem. 131, 833-837, 2002
A;Title: Embryonic lethality of mutant mice deficient in A;Reference number: JC7862; MUID:22035555; PMID:12038979 A;Accession: JC7862
                                                                                                                                                                                                                eukaryotic initiation factor, eIF3 subunit, p116 p1 C;Species: Mus musculus (house mouse) C;Date: 18-Nov-2002 #sequence_revision 18-Nov-2002
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A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus A;Reference number: A89758; MUID:21311952; PMID:11418146
A;Accession: F90060
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C;Date: 10-May-2001 #text_change 09-Jul-2004
C;Accession: F90060
C;Accession: F00060
C;Accession: F00060
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A;Cross-references: UNIPROT:Q99R80;
A;Experimental source: strain N315
                                                                                                                                                                         R; Koyanagi-Katsuta, R.; Akimitsu,
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Best Local Similarity
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Pred. No.
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similar to late embryogenesis abundant proteins [imported] - Arabidopsis thaliana N;Alternate names: hypothetical protein T18E12.19 C;Species: Arabidopsis thaliana (mouse-ear Cress) C;Date: 24-Mar-1999 #sequence revision 24-Mar-1999 #text_change 09-Jul-2004 C;Accession: T02712; G84444 F.;Rounsley, S.D.; Lin, X.; Kaul, S.; Shea, T.P.; Fujii, C.Y.; Mason, T.M.; Shen, submitted to the EMBL Data Library, September 1998 A;Description: Arabidopsis thaliana chromosome II BAC T18E12 genomic sequence.
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R;Kawaguchi, T.; Ikeuchi, Y.; Tsutsumi, N.; Kan, A.; Sumitani, J.; Arai, M. J. Ferment. Bioeng. 85, 144-149, 1998
A;Title: Cloning, nucleotide sequence, and expression of the Clostridium the A;Reference number: Z14077
A;Accession: T00045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Moolecule type: DNA
A; Residues: 1-1805 < ROU>
A; Residues: 1-1805 < ROU>
A; Residues: 1-1805 < ROU>
A; Cross-references: UNIPROT: O81060; EMBL: ACO05313; NID: g3548797; PID: g3548816
A; Experimental source: cultivar Columbia
A; Experime
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A;Residues: 1-1805 <STO>
A;Cross-references: GB:AE002093; NID:g3548816; PIDN:AAC34488.1; GSPDB:GN00139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana. A;Reference number: A84420; MUID:20083487; PMID:10617197 A;Accession: G84444
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Best Local Similarity
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100.0%; Pred. No. 1.8e+02;
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C;Genetics:
A;Map position: segment 2
C;Superfamily: bluetongue virus VP2 protein
C;Superfamily: canaid protein; hemagglutinin
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R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K. Lancet 357, 1225-1240, 2001

A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus. A;Reference number: A89758; MUID:21311952; PMID:11418146

A;Accession: H89973
                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: UNIPROT:P06945; GB:M11787; GB:M16566; R;Roy, P.; Marshall, J.J.A.; French, T.J.
Curr. Top. Microbiol. Immunol. 162, 43-87, 1990
A;Title: Structure of the bluetongue virus genome and its
A;Reference number: S10534; MUID:90345726; PMID:2166648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Purdy, M.A.; Ghiasi, H.; Rao, C.D.; Roy, P.
J. Virol. 55, 826-830, 1985
A;Title: Complete sequence of bluetongue virus L2 RNA that codes for the antigen recogn:
A;Reference number: A25484; MUID:85265048; PMID:2991598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: bluetongue virus
C;Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 09-Jul-2004
C;Accession: A25484; S10535
                                                                                                                                                                                                                                                                                                   A; Molecule type: genomic RNA
A; Residues: 1-956 < ROY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: genomic RNA
A; Residues: 1-956 < PUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  major outer capsid protein VP2 - bluetongue virus (serotype 10, American isolate)
N;Alternate names: BTV hemagglutinin protein; principal serotype-determining anti
                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: UNIPROT:Q99T14;
A;Experimental source: strain N315
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A; Residues: 1-364 < KUR>
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C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
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Best Local :
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YDYYPLE 155
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                                                                                                                        Score 36;
Pred. No.
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beta

chain -

Aulonocara hansbaenschi (fragment)

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2-haloalkanoic acid dehalogenase [imported] - Sulfolobus solfataricus C;Species: Sulfolobus solfataricus C;Species: Sulfolobus solfataricus C;Date: 24-May-2001 #sequence_revision 24-May-2001 #text_change 09-Jul-2004 C;Accession: H90369 R;She, Q.; Singh, R.K.; Confalonieri, F.; Zivanovic, Y.; Allard, G.; Awayez, M.J.; Jong, I.; Jeffries, A.C.; Kozera, C.J.; Meddina, N.; Peng, X.; Thi-Ngoc, H.P.; Redd arrett, R.A.; Rangan, M.A.; Sensen, C.W.; Van der Oost, J. submitted to GenBank, April 2001 submitted to GenBank, April 2001 A;Description: Sulfolobus solfataricus complete genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Aulonocara hansbaenschi
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C;Accession: I5098
R;Ono, H.; O'hUigin, C.; Vincek, V.; Klein, J.
Immunogenetics 38, 223-234, 1993
A;Title: Exon-intron organization of fish major histocompatibility complex class
A;Reference number: I50093; MUID:93279741; EMID:8505065
A;Accession: I50996
A;Cross-references: UNIPROT:Q97WT6; GB:AE006641; NID:g13815309; PIDN:AAK42215.1; C;Genetics: A;Gene: SSO2028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-212 < KUR>
A; Cross-references: UNII
C; Genetics:
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A;Description: Sulfolobus solfataricus complete genome.
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                                                                  A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-212 <KUR>
                                                                                                                                  A; Reference number: A99139
A; Accession: H90369
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Pred. No.
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  C;Species:
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Nature 390, 580-586, 1997
A;Authors: Smith, H.O.; Venter, J.C.
A;Title: Genomic sequence of a Lyme disease spirochaete, A;Reference number: A70100; MUID:98065943; PMID:9403685
A;Accession: H70223
                                                                                                                                                                                                                                                                                                                                                                                                        conserved hypothetical protein BBD21 - Lyme disease spirochete plasmid D/lp17 C;Species: Borrelia burgdorferi (Lyme disease spirochete)
C;Date: 13-Feb-1998 #sequence_revision 13-Feb-1998 #text_change 09-Ju1-2004
C;Accession: H70223
C;Accession: H70223
R;Fraser, C.M.; Casjens, S.; Huang, W.M.; Sutton, G.G.; Clayton, R.; Lathigra, son, D.; Peterson, J.; Kerlavage, A.R.; Quackenbush, J.; Salzberg, S.; Hanson, Son, D.; Garland, S.; Fujii, C.; Cotton, M.D.; Horst, K.; Roberts, K.; Hat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Ono, H.; O'hUlgin, C.; Vincek, V.; Klein, J.
Immunogenetics 38, 223-234, 1993
A;Title: Exon-intron organization of fish major histocompatibility
A;Reference number: 150093; MUID:93279741; PMID:8505065
A;Accession: I50094
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I50094
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                                                                                                                                                                                                                                                   A;Status: preliminary; nucleic acid sequence not A;Molecule type: DNA A;Residues: 1-246 <KLE>
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                                                                                                                                                                                                                A;Cross-references: UNIPROT:P70843; A;Experimental source: strain B31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Aulonocara hansbaenschi
C;Date: 13-Sep-1996 #sequence_revi
                                                                                                                                                                         A;Genome: plasmid
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A; Residues: 1-246 < ONO>
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Best Local Similarity
Matches 5; Conserv
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nes 5; Conserv
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225
                                  1 YDYYPE 6
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C_Accession: 19093
Immungsquentics 36, 223-244, 1939
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Q9pun1 xenopus lae
Q9kwj7 staphylococ
Q86tn0 homo sapien
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Q9hhp9 halobacteri
Q60980 mus musculu
P57682 homo sapien
Q6pirl
Q62y5
Q962y5
Q98aai4
Q98rah8
Q97arah8
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Q89r467
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Q65735 bluetongue	P06945 bluetongue	Q8dh56 synechococc	Q7q6p4 anopheles g	Q7rt71 plasmodium	Q7s2s2 neurospora	Q9vz54 drosophila	Q6gfj2 staphylococ	Q6g869 staphylococ	Q7a4t4 staphylococ	Q7a0j2 staphylococ	Q99t14 staphylococ	Q8ka19 buchnera ap	Q9vai5 drosophila

ALIGNMENTS

	RP SEQ RP SEQ RX MED RX MED RA NAK RI "A RI Wit RI Thr RN [4] RN [4] RN Rie RA Rie RA Nic		BA_SUL
"SeattleSNPS. NHLBI HL66682 program for genomic applications, UW- "Seattle, WA (URL: http://pga.gs.washington.edu)."; Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases. [5] SEQUENCE FROM N.A., MUTAGENESIS OF GLY-249 AND MET-255, AND VARIANT PSEUDO-VWD SER-249. PSEUDO-VWD SER-249. Matsubara Y., Murata M., Sugita K., Ikeda Y.; "Identification of a novel point mutation in platelet glycoprotein "Identification of a novel point mutation in platelet glycoprotein Tobalpha, Gly to Ser at residue 233, in a Japanese family with	SEQUENCE FROM N.A., AND VARIANT PHE-86. SEQUENCE FROM N.A., AND VARIANT PHE-86. MEDLINE=22034223; PubMed=12038791; MEDLINE=22034223; PubMed=12038791; MEDLINE=22034223; PubMed=12038791; NARAJIMA Y., MUTAKE M., MOTIKI T., YOKOYAMA K., WATANABE N., NARAJIMA H., HANDA M., KAWANO K., AOKI N., YOSHINO H., Ikeda Y.; NARAJIMA H., Ikeda Y.; NEDALBHA."; Thromb. Haemost. 87:867-872(2002). [4] [4] [4] [6] [6] [8] [8] [9] [9] [9] [9] [9] [9] [9] [9] [9] [9	SEQUENCE FROM N.A., AND PARTIAL SEQUENCE. MEDLINE=87289655; PubMed=3303030; Lopez J.A., Chung D.W. Fujikawa K., Hagen F.S., Papayannopoulou T., Roth G.J.; "Cloning of the alpha chain of human platelet glycoprotein Ib: a transmembrane protein with homology to leucine-rich alpha 2- glycoprotein."; Proc. Natl. Acad. Sci. U.S.A. 84:5615-5619(1987). [2] REDLINE=89025974; PubMed=2845978; Wenger R.H., Kieffer N., Wicki A.N., Clemetson K.J.; "Structure of the human blood platelet membrane glycoprotein Ib alpha gene."; Biochem. Biophys. Res. Commun. 156:389-395(1988).	HUMAN STANDARD; PRT; 626 AA. GPBA HUMAN STANDARD; PRT; 626 AA. P07359; Q14441; Q16469; QBN1F3; QBNG39; Q9HDC7; Q9UEK1; Q9UQS4; 01-APR-1988 (Rel. 07, Created) 01-APR-1988 (Rel. 07, Last sequence update) 25-CCT-2004 (Rel. 45, Last annotation update) 25-CCT-2004 (Rel. 45, Last annotation update) Platelet glycoprotein Ib alpha chain precursor (Glycoprotein Ibalpha) (GP-Ib alpha) (GPIba) (GPIb-alpha) (CD42B-alpha) (CD42B) [Contains: Glycocalicin]. Name-GPIBA; Homo sapiens (Human). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. NCBI_TaxID=9606;

platelet-type von Willebrand disease.";

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A Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,

A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Backnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

"Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";

Back C. Shevold M. S. Sanchez C. Shevold C. Shevol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-Endothelial cells, and Placenta;
MEDLINE=98316317; PubMed=9651345; DOI=10.1074/jbc.273.28.17531;
Takafuta T., Wu G., Murphy G.F., Shapiro S.S.;
"Human beta-filamin is a new protein that interacts with the cytoplasmic tail of glycoprotein Ibalpha.";
J. Biol. Chem. 273:17531-17538(1998).
TYR-292; TYR-294 AND TYR-295.

MEDLINE=22217968; PubMed=12087105; DOI=10.1074/jbc.M205271200;

Uff S., Clemetson J.M., Harrison T., Clemetson K.J., Emsley J.,

"Crystal structure of the platelet glycoprotein Ibalpha N-term:
domain reveals an unmasking mechanism for receptor activation.

J. Biol. Chem. 277:35657-35663(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=91301149; PubMed=2070794;
Hess D., Schaller J., Rickli E.E.,
"Identification of the disulphide
                                                                                                                                                                                                                                                                                                          "Structures of glycoprotein Ibalpha and Willebrand factor Al domain."; Science 297:1176-1179(2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Suzuki K., Hayashi T., Akiba J.,
Sasaki H.;
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"Amino acid sequence of the von Willebrand facto
platelet membrane glycoprotein ib.";
Proc. Natl. Acad. Sci. U.S.A. 84:5610-5614(1987)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Lung;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-22171415; PubMed=12183630; DOI=10.1126/science.107355;
Hulzinga E.G., Tsuji S., Romijn R.A., Schiphorst M.E., de Groo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
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c. Natl. Acad. Sci. U.S.A.
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41:419-421(1996).
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MEDLINE-93388851; PubMed-7690774; Ware J., Russell S.R., Marchese P., Murata M., Mazzuc de Marco L., Ruggeri Z.M.; Point mutation in a leucine-rich repeat of platelet alpha resulting in the Bernard-Soulier syndrome."; J. Clin. Invest. 92:1213-1220(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lopez J.A., Ludwig E.H., McCarthy B.J.;
"Polymorphism of human glycoprotein Ib alpha results from a variable number of trandem repeats of a 13-amino acid sequence in the mucin-lik macroglycopeptide region. Structure/function implications.";
J. Biol. Chem. 267:10055-10061(1992).
                                   repeats of 13 amino genetic linkage with
                                                                                                                                                                                                                                            MEDLINE-93253059; PubMed-8486780;
Murata M., Russell S.R., Ruggeri Z.M., Ware J.;
"Expression of the phenotypic abnormality of platelet-type von
Willebrand disease in a recombinant glycoprotein Ib alpha fragment.";
J. Clin. Invest. 91:2133-2137(1993).
                                                                                                                                                                                                                                                                                                                                          miller J.L., Cunningham D., Lyle V.A., Finch C.N.; "Mutation in the gene encoding the alpha chain of plately glycoprotein Ib in platelet-type von Willebrand disease. Proc. Natl. Acad. Sci. U.S.A. 88:4761-4765(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
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Miller J.L., Lyle V.A., Cunningham D.;
"Mutation of leucine-57 to phenylalanine
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Furuta S.;
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MEDLINE-92265982; PubMed=1586750;
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MEDLINE=91271273; PubMed=2052556;
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BSS LEU-195
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[2]
                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopus.
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GO; GO:0004527; F:exonuclease activity;
InterPro; IPR004859; Put 53exo.
Pfam; PF03159; XRN_N; 1.
                                  Cordenonsi M., Turco F., Meggio F., Citi S.;
"Xenopus laevis occludin.
                                                                                                                                                                                                 OCLN XENLA
                                                                                                                                                                                                                                                                                                                                                                                        Submitted (SEP-2004) to the EMBL; AE016820; AAS54793.1;
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Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Eremothecium.
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CHARACTER I ZATION
                            eites
                                                    TISSUE=Ovary;
MEDLINE=99421641; PubMed=10491082;
                                                                                 SEQUENCE FROM N.A.,
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Dietrich F.S.;
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Q9KWJ7; Q9KWJ7; 01-OCT-2000 01-OCT-2000 01-OCT-2003

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use by non-profit institutions as long
modified and this statement is not removed.
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J. Cell Sci. 110:3131-3139(1997).
-i- FUNCTION: Probably plays a role in the formation and regulation the tight junction (TJ) paracellular permeability barrier.
-i- SUBUNIT: Interacts in vitro with cingulin, possibly directly.
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                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (S or send an email to license@isb-sib.ch).
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Coiled coil;
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DOMAIN: The C-terminus is cytoplasmic and is imp
interaction with ZO-1. Necessary for the tight j
localization. Involved in the regulation of the
barrier function of the tight junction (By simil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEVELOPMENTAL STAGE: A maternally synthesized protein. Four granules in the peripheral cytoplasm in the fertilized egg, localizes first to the basolateral membrane, then to tight localizes first to the basolateral membrane, then to tight junctions after cingulin and ZO-1. Nascent tight junctions place by the two-cell stage. The maternal form is more high phosphorylated than the form detected in later developmenta
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SIMILARITY: Belongs to the ELL / occludin family.
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PF07303; Occludin ELL; 1.
S; PR01258; OCCLUDIN.
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IPR010844; Occludin_ELL.
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                            RA Strausberg R.D., Fedingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altechul S.F., Zeeberg B., Buetcw K.H., Schaefer C.F., Bhat N.K.,
RA Altechul S.F., Zeeberg B., Buetcw K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Wax S.I., Wang J., Hong L.,
RA Hopkins R.F., Jordan R.J., Rabin G.M., Hong L.,
RA S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Raheysley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Rodriguez S.J., Marra M.A.;
M. Jones S.J., Marra M.A.;
M. Jones S.J., Marra M.A.;
M. Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local (
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NON_TER 1
SEQUENCE 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q86TNO;
Q86TNO;
Q86TNO;
Q1-JUN-2003 (TrEMBLrel. 24, Created)
Q1-JUN-2003 (TrEMBLrel. 24, Last sequence update)
Q1-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Similar to Kruppel-like factor 3 (Basic).
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AB035451; BAB03335.1; -.
HSSP; O32220; IKOK.
GO; GO:0015097; F:mercury ion transporter activity;
GO; GO:0015097; F:metal ion binding; IEA.
GO; GO:0016672; F:metcal ion transport; IEA.
GO; GO:0030001; P:metcal ion transport; IEA.
InterPro; IPR006121; HeavyMe_transpt.
InterPro; IPR001802; HG_scavenger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kuroda M., Kuwahara-Arai K., Hiramatsu K., 
"Identification of the up- and down-regulated genes resistant Staphylococcus aureus strains Mu3 and Mu50 differential hybridization method.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q86TN0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00946; HGSCAVENGER.
PROSITE; PS01047; HMA_1; 2.
PROSITE; PS50846; HMA_2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Staphylococcus aureus
Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochem
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
         Tones S.J.,
Generation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115
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         and
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         initial
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Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacillales; Staphylococcus.
         analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37; pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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f
         more
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   than 15,000 full-length human
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Best Local
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Q8BV07;
01-MAR-2003
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=C57BL/6J; TISSUE=Head;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

MEDLINE=20530913; PubMed=11076861; PubM
                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

STRAIN-C578L/6J; TISSUE-Head;

MEDLINE-20949374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs

prepare full-length cDNA libraries for rapid discovery of new
fenome Res. 10:1617-1630(2000).
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Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases
EMBL; BC051687; AAH51687.1; -.
SEQUENCE 232 AA; 25529 MW; 70AA00DA831A5D6B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the RIKEN Genome Exploration Research "Analysis of the mouse transcriptome 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Mus muscullus 16 days embryo head cDNA, RIKEN full-length enriched
library, clone:C130019K13 product:Kruppel-like factor 3 (basic), 1
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[2]
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STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIKEN FANTOM Consortium; runctional annotation of a full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
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c. Natl. Acad. Sci. U.S.A.
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(TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  214
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.1%;
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; Pred. No. 76;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99:16899-16903 (2002)
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based o
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annotation
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Best Local
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01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Polysaccharide deacetylase (EC 3.5.1.-).
OrderedLocusNames=MM1117;
OrderedLocusNames=MM117;
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HSSF, Q60980; 1F7A.
MGD; MGI:1342773; Klf3.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003676; F:nucleic acid binding; IEA.
GO; GO:0003270; F:zinc ion binding; IEA.
InterPro; IPR007087; Znf C2H2.
InterPro; IPR007087; Znf C2H2.
                                                                                                                                                                               SEQUENCE FROM N.A.

STRAIN=GOel / GOl / ATCC BAA-199 / DSM 3647 / OCM

MEDLINE=22120827; PubMed=12125824;

Deppenmeier U., Johann A., Hartsch T., Merkl R., S

Martinez-Arias R., Henne A., Wiezer A., Baeumer S.

Brueggemann H., Lienard T., Christmann A., Boemeck

Bhattacharyya A., Lykidis A., Overbeek R., Klenk F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P., Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W., Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T., Hirozane T., Kagashida K., Ishii Y., Itoh M., Kagawa I., Kasukawa T., Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M., Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y., Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H., Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M., Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T., Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y., Submitted (ARR-2002) to the EMBL/GenBank/DDBJ databases.
     88
                                                                              "The genome of Methanosarcina mazei: evidence f
transfer between Bacteria and Archaea.";
J. Mol. Microbiol. Biotechnol. 4:453-461(2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Methanosarcina mazei (Methanosarcina fri
Archaea; Euryarchaeota; Methanomicrobia;
Methanosarcinaceae; Methanosarcina.
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SMART; SM00355; ZnF CZH2; 3.
PROSITE; PS00028; ZINC FINGER C2H2 1;
PROSITE; PS50157; ZINC_FINGER_C2H2_2;
NON TEP
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STRAIN=C57BL/6J; TISSUB=Head;
                                                             EMBL; AE013339;
                                                                                                                                            Fritz H.-J., Gottschalk G.;
"The genome of Methanosarcina mazei:
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                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=2209;
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AAM30813.1; -. F:hydrolase activity, acting on P:carbohydrate metabolism; IEA.
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A., Boemecke M., Steck
R., Klenk H.-P., Gunse
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                                carbon-nitrog.
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Q9HHP9
ID HP9
ID COS
DT O11
DT
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REMBL; AE005159; AAG20927.1; -. NR GO; GO:0004803; F:transnosaea "attait".
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                       DAFFEE BERROO
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KLF3_MOUSE
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Best Local :
No. 1. 1000 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 45, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Kruppel-like factor 3 (Basic kruppel-like factor)
protein BKLF) (TEF-2).
Name-Klis; Synonyms-BKLF;
Mus musculus (Mouse).

Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF01609; Transposase 11; 1.

PROSITE; PS00018; EF HAND; UNKNOWN 1.

Complete proteome; Plasmid.
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InterPro; IPR002559; Transposase_11.
Pfam; PF01609; Transposase_11; 1.
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Q9ННР9;
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01-MAR-2001
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301 AA; 34521 MW; 4D1DA3869C9BCCBB CRC64;
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Last annotation updat
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Pred. No.
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Pred.
                  Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65D41B43E6EDF3B3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                          344 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1e+02;
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                                                                                                                 (CACCC-box binding
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RESULT 10
KLF3 HUMAN
ID F7682
AC P57682
DT 16-OCT
DT 16-JUL
DE Kruppe
DE Kruppe
GE Name=R
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Best Local S
Matches 6
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ZN_FING
ZN_FING
SEQUENCE
                               KLF3 HUMAN STANDARD; PRT; 345 AA. P57682; Q9P2X6; 16-OCT-2001 (Rel. 40, Created) 16-OCT-2001 (Rel. 40, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Kruppel-like factor 3 (Basic kruppel-like factor) protein BKLF) (TEF-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGD; MGI:1342773; K1f3.

InterPro; IPR007087; Znf C2H2.

Pfam; PF00096; Zf-C2H2; 3.

ProDom; PD000003; Znf C2H2; 3.

PROSITE; PS00028; ZNC_FINGER_C2H2 1; 3.

PROSITE; PS50157, ZNNC_FINGER_C2H2 2; 3.

3D-structure; Activator; DNA-binding; Metal-binding; Nuclear protein; Repeat; Repressor; Transcription regulation; Zinc-finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              major CACCC-box-binding
cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=96239526; PubMed=8657145; Crossley M., Whitelaw E., Perkins
       Name=KLF3; Synonyms=BKLF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U36340; AAA93256.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Orkin S.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT: Interacts with the C-terminal binding protein 2. SUBCLIULAR LOCATION: Nuclear (Probable).

TISSUB SPECIFICITY: In 8.5 day embryos, expressed in midbrain, anterior hindbrain and ventral forebrain. In 9 day embryos, expressed throughout ventral anterior half of embryo including midbrain-hindbrain junction, ventral midbrain, diencephalon and forebrain. At 10.5 days, distribution is more widespread with expression also found in developing limb buds. Widely expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Contains 3 C2H2-type zinc fingers.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: Binds
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                                                                                                                                                                                                                                                                                                                   208 DYYPEE 213
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                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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289
319
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nds to the CACCC box. May play a role
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74
65
283
313
341
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38560
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                                                                                                                                                                                                                                                                                                                                                                                                                                            84.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repressor domain.
CTBP-binding motif.
C2H2-type 1.
C2H2-type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                  <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                  Score 37; DB; Pred. No. 1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C2H2-type 3.
2BB7E3B63A7C1D88 CRC64;
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3. 1.2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 344;
                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                         (CACCC-box binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and selected
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RESULT 11
QGPIR1
ID QGPIR
AC QGPIR
AC QGPIR
DT 05-JU
DT 05-JU
DT 05-JU
DE Krupg
GN Name=
GN Homo
OC Bukar
OC Mamma
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Best Local
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PROSITE; PS00028; ZNC FINGER C2H2 1; 3.

PROSITE; PS00028; ZNC FINGER C2H2 2; 3.

Activator; DNA-binding; Metal-binding; Nuclear prot Repressor; Transcription regulation; Zinc-finger. DOMAIN 1 251 Pro-rich.

DOMAIN 1 74 Repressor domain.

SITE 61 65 CTBP-binding motif.

ZN FING 260 284 C2H2-type 1.

ZN FING 290 314 C2H2-type 3.

ZN FING 290 314 C2H2-type 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AB024523; BAA92271.1; -.
EMBL; AP285837; AAK27329.1; -.
HSSP; P08047; 15P2.
Genew; HGNC:16516; KLF3.
GO; GO:0007275; P:development; T
InterPro; IPR007087; Znf C2H2.
Pfam; PF00096; Zf C2H2; 3
                                                           Q6PIR1;
Q6PIR1;
05-JUL-2004 ('05-JUL-2004 ('05-JUL-2004 ('Kruppel-like')
Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restructe by non-profit institutions as long as its content use by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ou X., Zhang C., Wang M., Yu Y., Wei H., Xing G., Wu S., Lu C., Zhou G., Dong C., He F.;
"hBKLF mNAM for basic Kruppel-like factor.";
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: Binds to the CACCC box. May play a role in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matsumoto
Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
MCBI_TaxID=9606;
                                                 Name=KLF3;
                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (By similarity).
-i- SUBUNIT: Interacts with the C-terminal binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
Matsumoto N., Yoshida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SIMILARITY: Contains 3 C2H2-type zinc fingers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - 1- SUBCELLULAR LOCATION: Nuclear (Probable).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: Belongs
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                                                                                                                                                                                                             209
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                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                            DYYPEE 214
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(MAR-1999)
                                                                           (TrEMBLrel.
(TrEMBLrel.
                                                                                                                                                                                                                                                                                                                             345 AA;
                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                      PRELIMINARY;
                                                               factor 3 (Basic)
                                                                                                                                                                                                                                                                                                                             38828
                                                                                                                                                                                                                                                                                   84.1%;
100.0%;
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to the EMBL/GenBank/DDBJ databases.
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                                                                                                                                                                                                                                                                    Score 37; DB; Pred. No. 1.2
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C2H2-type 3.
; A490D642AB8F1FDC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    krueppel C2H2-type zinc-finger protein
                                                                           sequence update) annotation updat
                                                                                                                                      345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                            Nuclear protein; Repeat;
                                                                                                                                                                                                                                                                                                 DB 1;
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                                                                                                                                                                                                                                                                                                 Length 345;
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RA Klauener R.D., Colline F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Expleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Uddin T.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., McTley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettenan M., Madan A., Rodrigues S., Sanchez A.,
RA Hothird M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalka U., Smailus D.E., Schnerch A., Schein J.E.,
Pan Tonen G. T. Mayra M. h.
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05-JUL-2004
05-JUL-2004
05-JUL-2004
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PHAM; PF00096; Zf-C2H2; 2.

PROSITE; PS000355; ZTMC FINGER C2H2 1; 3.

PROSITE; PS50157; ZINC FINGER C2H2 2; 3.

PROSITE; PS50157; ZINC FINGER C2H2 2; 3.
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Proc. N
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                        SEQUENCE FROM N.A.
STRAIN-DSM 9790 / ATCC 700027;
STRAIN-DSM 9790 / ATCC 700027;
PubMed=15184674; DOI=10.1073/pnas.0401356101;
Fuetterer O., Angelov A., Liesegang H., Gottschalk G.,
Fuetterer B., Dock C., Antranikian G., Liebi W.;
"Genome sequence of Picrophilus torridus and its implication of pho.";
                                                                                                                                                                                                                                                                                                Archaea; Euryarchaeota; The:
Picrophilaceae; Picrophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                jubmitted (MAY-2002).

MBL; BC030662; AAH30662.1; -.

30; GO:0005634; C:nucleus; IEA.

GO; GO:0003676; F:nucleic acid binding; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

InterPro; IPR007087; Znf C2H2.

InterPro; IPR007087; Znf C2H2.
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"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Brain;
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   Sci. U.S.A.
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100.0%;
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annotation update)
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ches 0;
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Q962Y5;
Q1-DEC-2001
Q1-DEC-2001
Q1-MAR-2004
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01-JUN-2003 (
01-JUN-2003 (
01-MAR-2004 (
                      SEQUENCE FROM N.A.
STRAIN=VPI-5482 / ATCC 29148;
MEDLINE=22550858; PubMed=12663928; DOI=10.
Xu J., Bjursell M.K., Himrod J., Deng S.,
Chiang H.C., Hooper L.V., Gordon J.I.;
"A genomic view of the human-Bacteroides t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ascaris suum (Pig roundworm)
Eukaryota; Metazoa; Nematoda;
Ascarididae; Ascaris.
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01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Putative chitinase (EC 3.2.1.14) (Fragment).
Ascaris suum (Pig roundworm) (Ascaris lumbricoides).
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Geng J., Komuniecki P.,
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                                                                                                                                                                    NCBI_TaxID=818;
                                                                                                                                                                                                                   Bacteria; Bacteroidetes;
                                                                                                                                                                                                                                     Bacteroides thetaiotaomicron
                                                                                                                                                                                                                                                             OrderedLocusNames=BT0480;
                                                                                                                                                                                                                                                                                 Glycosyltransferase
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                                                                                                                                                                                               Bacteroidaceae;
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G0:0004568; F:chitinase activity; IEA.
G0:0016798; F:hydrolase activity, acting on
G0:0005975; P:carbohydrate metabolism; IEA.
G0:0016998; P:cell wall catabolism; IEA.
G0:0006032; P:chitin catabolism; IEA.
G0:0006032; P:chitin catabolism; IEA.
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hydro_19; 1.
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Mismatches
                                                                                                                                                                                                                                                                                                                         sequence update)
                                                                DOI=10.1126/science.1080029;
eng S., Carmichael L.K.,
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                          thetaiotaomicron symbiosis.";
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PIR; F82162; F82162.
TIGR; VC1754; --
Complete proteome.
SEQUENCE 547 AA; 6
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STRAIN=E1 Tor N16961 / Serotype O1;

MEDLINE=20406833; PubMed=10952301; DOI=10.1038/35020000;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.I.

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Edill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.L.,

Ermolaeva M.D., Vamathevan J.J., Bass S., Qin H., Dragoi I.,

Sellers P., McDonald L.A., Utterback T.R., Fleischmann R.D.,

Nierman W.C., White O., Salzberg S.L., Smith H.O., Colwell R.R.,

Mekalanos J.J., Venter J.C., Fraser C.M.;

"DNA sequence of both chromosomes of the cholera pathogen Vibrio
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01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
Paraquat-inducible protein B.
OrderedLocusNames=VC1754;
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GO; GO:0016740; F:transferase activity; IEA.
InterPro; IPR003362; Bact transf.
Pfam; PF02397; Bac transf; 1.
Complete proteome; Transferase.
SEQUENCE 468 AA; 55016 MW; 7DAA3596275C8
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Vibrionaceae; Vibrio.
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                                                                                                                                                                                DYYPEE 7
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100.0%; Pred. No. 1.6e+02;
tive 0; Mismatches 0;
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match Length
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/FCTUS_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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4 US-09-381-546-15
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4 US-09-381-546-45
1 US-07-613-083B-1
1 US-07-613-083B-1
1 US-08-135-923A-11
1 US-08-135-923A-11
1 US-08-135-923A-3
1 US-08-135-923A-1
1 US-08-135-923A-1
1 US-09-134-275-1
1 US-09-562-737-91
1 US-09-562-737-92
1 US-09-562-737-93
1 US-09-562-737-94
1 US-09-70-767-5925
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1 US-09-270-767-45796
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Sequence 8, Appli
Sequence 15, Appl
Sequence 16, Appli
Sequence 45, Appli
Sequence 45, Appli
Sequence 6, Appli
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Sequence 11, Appli
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US-09-495-406-5	US-09-495-406-3	US-09-710-279-1678	US-09-134-000C-3607	US-09-546-238-2	US-08-990-140-2	US-09-107-532A-7189	US-09-270-767-45596	US-09-508-710-18	US-09-903-456-68	US-09-562-737-99	US-09-248-796A-22880	US-09-489-039A-12782	US-09-248-796A-20047	US-09-902-540-13163	5196333-2	5196333-2	5196333-6
Sequence 5, Appli	Sequence 3, Appli	Sequence 1678, Ap	Sequence 3607, Ap	Sequence 2, Appli	Sequence 2, Appli	Sequence 7189, Ap	Sequence 45596, A	•		Sequence 99, Appl	Sequence 22880, A	Sequence 12782, A	Sequence 20047, A	Sequence 13163, A	Patent No. 5196333	Patent No. 5196333	Patent No. 5196333

ALIGNMENTS

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RESULT 1
US-08-520-977A-8
                                                                                            US-08-520-977A-8
                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: BYOWN, SCOLE A.
REGISTRATION NUMBER: 32,724
REFERENCE/DOCKET NUMBER: G152
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 498-8224
TELEPHONE: (617) 496-5851
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LEWING.
Query Match
Best Local Similarity
Matches 7; Conserv
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Patent No. 5659018
GENERAL INFORMATION:
APPLICANT: Berndt, Michael C.
APPLICANT: Dunlop, Lindsay
APPLICANT: Andrews, Robert
APPLICANT: DeLuca, Mariagrazia
                                                                                                       LENGTH: 19 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/520,977A
FILING DATE:
CLASSIFICATION: 530
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Andrews, Robert
APPLICANT: Deluca, Mariagrazia
TITLE OF INVENTION: MOCARHAGIN, A NOVEL COBRA VENOM
TITLE OF INVENTION: PROTEASE, AND THERAPEUTIC USES THEREOF
NUMBER OF SEQUENCES: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
ZIP: 021
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STREET: 87 Cambridges
CITY: Cambridge
STATE: Massachusetts
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                                                                                                                                                                                                        19 amino acids
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87 CambridgePark Drive
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  100.0%; Score 44; DB 1; Length 19; ilarity 100.0%; Pred. No. 0.27; Conservative 0; Mismatches 0; Indels
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; OTHER INFORMATION: Description of Artificial Sequence: modified
; OTHER INFORMATION: dendroaspin
US-09-381-546-11
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; OTHER INFORMATION: dendroaspin
US-09-381-546-15
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Matches 7; Conserv
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APPLICANT: Trigen Limited
TITLE OF INVENTION: BI- OR MULTIFUNCTIONAL MOLECULES
TITLE OF INVENTION: SCAFFOLD
                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 11, Application US/09381546 Patent No. 6451976
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SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 15, Application US/09381546 Patent No. 6451976
                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/381,546
CURRENT FILLING DATE: 1999-09-20
PRIOR APPLICATION NUMBER: PCT/GB98/00848
PRIOR FILING DATE: 1998-09-20
PRIOR APPLICATION NUMBER: GB9705787.1
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Trigen Limited
TITLE OF INVENTION: BI- OR MULTIFUNCTIONAL MOLECULES BASED ON A DENDROASPIN
TITLE OF INVENTION: SCAFFOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/381,546
CURRENT FILING DATE: 1999-09-20
PRIOR APPLICATION NUMBER: PCT/GB98/00848
PRIOR FILING DATE: 1998-09-20
PRIOR APPLICATION NUMBER: GB9705787.1
PRIOR FILING DATE: 1997-03-20
                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 1997-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 19
NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE:
                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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                          YDYYPEE 7
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YDYYPEE 15
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                                                                      Conservative
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                                                                                   100.0%; Score 44; DB 4; Length 61; 100.0%; Pred. No. 0.89;
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100.0%; Pred. No.
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                                                                                                                                       US-09-381-546-45
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                                                                                                                                                                                                                        SEQ ID NO 45
LENGTH: 66
TYPE: PRT
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SEQ ID NO 16
LENGTH: 63
TYPE: PRT
                                                                  Query Match
Best Local S
Matches 7
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APPLICANT: Trigen Limited
TITLE OF INVENTION: BI- OR MULTIFUNCTIONAL MOLECULES
TITLE OF INVENTION: SCAPFOLD
OF INVENTION: SCAPFOLD
                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Trigen Limited
TITLE OF INVENTION: BI- OR M
TITLE OF INVENTION: SCAFFOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 45, Application US/09381546 Patent No. 6451976
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Best Local
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CURRENT APPLICATION NUMBER: US/09/381,546
CURRENT FILING DATE: 1999-09-20
PRIOR APPLICATION NUMBER: PCT/GB98/00848
PRIOR FILING DATE: 1998-09-20
PRIOR APPLICATION NUMBER: GB9705787.1
PRIOR FILING DATE: 1997-03-20
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                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS:
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                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: modified OTHER INFORMATION: dendroaspin
                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
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 57
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                                 1 YDYYPEE 7
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7; Conserva
                                                                  h 100.0%;
Similarity 100.0%;
7; Conservative (
YDYYPEE 63
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VENTION: BI- OR MULTIFUNCTIONAL MOLECULES BASED ON A DENDROASPIN
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Conservative (
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                                                                  Score 44; DB
Pred. No. 0.9
D; Mismatches
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Pred. No.
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RESULT 6 US-07-613-083B-1

; Sequence 1, Application US/07613083B

Patent No. 5340727

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Patent No. 5298239
GENERAL INFORMATION:
APPLICANT: Miller, Jonathan L.
APPLICANT: Cunningham, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: BATTON, Alexis
REGISTRATION NUMBER: 22,702
REFERENCE/DOCKET NUMBER: P16,
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 923-4466
TELEPAX: (215) 923-2189
INFORMATION FOR SEQ ID NO: 1:
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APPLICANT: Ware, Jerry, inventors
APPLICANT: on behalf of Scripps Clinic and Research
APPLICANT: Foundation
TITLE OF INVENTION: GPID' Fragments and Recombinant
TITLE OF INVENTION: DNA Expression Vectors
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA: This appl. is a c-i-p
APPLICATION NUMBER: U.S. 07/470,674
FILING DATE: 04-Gan-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                           APPLICANT: Miller, Jonathan L.
APPLICANT: Cunningham, David
APPLICANT: Lyle, Vickla,
APPLICANT: Finch, Clara N.
TITLE OF INVENTION: MUTATIONS RENDERING PLATELET
TITLE OF INVENTION: GLYCOPROTEIN ID ALPHA LESS REACTIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette-5.25 inch, 1.2 Mb
COMPUTER: AST Bravet IBM PC comp. (386SX)
OPERATING SYSTEM: MS DOS version 3.2
SOFTWARE: WordPerfect 5.1 conv. to ASCII
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 320
COMPUTER READABLE FORM:
                                                                                                                                     NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                   STREET: Clinton
CITY: Rochester
                   COUNTRY: U
ZIP: 14603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: Li
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FILING DATE: 19911114
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: California
                                                         New York
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Clinton Square, P.O.
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10666 No. 5340727th Torrey Pines Road
                                      USA
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                                                                                               Devans & Doyle
. Box 1051
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Query Match
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US-08-119-262B-6
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                                      Sequence 6, Application US/08119262B
Patent No. 5492809
GENERAL INFORMATION:
APPLICANT: Miller, Jonathan L.
APPLICANT: Cunningham, David
APPLICANT: Lyle, Vicki A.
APPLICANT: Finch, Clara N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (716) 263-1600 INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0:
FILING DATE: 15-JAN-1992
CLASSIFICATION: 424
   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBLICATION INFORMATION:
AUTHORS: Lopez, Jose A.
AUTHORS: Chung, Dominic W.
AUTHORS: Fujikawa, Kazuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION
TELEPHONE: (716) 263-1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS: Mohri, Hiroshi
TITLE: Proteolytic fragments and synthetic
TITLE: peptides that block the binding of von
TITLE: platelet membrane glycoprotein Ib
DOCUMENT NUMBER: EP 0 317 278 A2
FILING DATE: 16-NOV-1989
PUBLICATION DATE: 24-MAY-1989
PUBLICATION ESSIDUES IN SEQ ID NO: 6: FROM 0 TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATE: AUG-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAGES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VOLUME:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
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REGISTRATION NUMBER:
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Cloning of the alpha chain of human
Cloning of the alpha chain of human
platelet glycoprotein Ib: A transmembrane protein with homology
to leucine-rich alpha-2-glycoprotein
Proc. Natl. Acad. Sci. U.S.A.
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Cunningham, David
Lyle, Vicki A.
Finch, Clara N.
NVENTION: MUTATIONS RENDERING PLATELET
NVENTION: GLYCOPROTEIN ID ALPHA LESS REACTIVE
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Ruggeri, Zaverio M.
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CORRESPONDENCE ADDRESS:

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RESULT 9
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Best Local (
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FILING DATE: 09-SEP-1993
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/821,717
FILING DATE: 15-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: Timain, Susan J.
REGISTRATION NUMBER: 34,103
REPERENCE/DOCKET NUMBER: 20884/22
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (716) 263-1600
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 610 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: CILL.
STREET: Nochester
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                   RELEVANT RESIDUES IN SEQ ID NO: PUBLICATION INFORMATION: AUTHORS: Zimmerman, Theodore S. AUTHORS: Ruggeri, Zaverio M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
PUBLICATION INFORMATION
AUTHORS: Lopez, Jose A.
AUTHORS: Chung, Dominic W.
AUTHORS: Fujikawa, Kazuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS:
AUTHORS:
AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                            AUTHORS:
AUTHORS:
AUTHORS:
AUTHORS:
                                                                                                                                                                                                                                       FILING DATE: 16-NOV-1988
PUBLICATION DATE: 24-MAY-1989
RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                                                                                                                                                                            AUTHORS: Houghten, Richard A.
AUTHORS: Vincete, Vincete
AUTHORS: wohri, Hiroshi
TITLE: Proteolytic fragments and synthetic peptides
TITLE: that block the binding of von Willebrand
TITLE: membrane glycoprotein 1b
DOCUMENT NUMBER: EP 0 317 278 A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                             276 YDYYPEE 282
                                                                                                    1 YDYYPEE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RS: Hagen, Frederick S.

RS: Papayannopoulou, Thalia

RS: Roth, Gerald J.

: Cloning of the alpha chain of human
: glycoprotein Ib: A transmembrane prote
: leucine-rich alpha-2-glycoprotein
RL: Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                           Similarity
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                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                            16-NOV-1988
                                                                                                                                                         100.0%; Score 44; DB 1; Length 610; 100.0%; Pred. No. 9.2;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 11, Application US/08135929A
                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 978450
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Timian, Susan J.
REGISTRATION NUMBER: 34,103
REFERENCE/DOCKET NUMBER: 2688
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Miller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/135,929A
FILING DATE: 14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                       APPLICANT: Miller, Jonathan L.
APPLICANT: Cunningham, David
APPLICANT: Lyle, Vicki A.
APPLICANT: Finch, Clara N.
APPLICANT: Pincus, Matthew R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of COMPUTER: IBM PC com
                                                                                                                                     APPLICANT: Pincus, Matthew R.
TITLE OF INVENTION: Chain of Platelet Glycoprotein Ib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
           CITY: Rochester
STATE: New York
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 610 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (716) 263-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Nixon, Hargrave, Devans & Doyle STREET: Clinton Square, P.O. Box 1051
                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                            276 YDYYPEE 282
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14603
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                                                               E: Nixon, Hargrave, Devans & Doyle Clinton Square, P.O. Box 1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miller, Jonathan L.
Cunningham, David
Lyle, Vicki A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 44; DB ilarity 100.0%; Pred. No. 9.2; Conservative 0; Mismatches
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Query Match
Best Local Similarity
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                                                                                                                                                                                                        SOFTWARE: FASTEM: DOS

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/843,993
FILING DATE: Filed Herewith
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
ETLING DATE:
FILING DATE:
FILING DATE:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3,
                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 610 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Timian, Susan J.
REGISTRATION NUMBER: 34,103
REFERENCE/DOCKET NUMBER: 2088
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1636
TELEPHONE: (716) 263-1600
TELEX: 978450
                                                                       TELEFAX: 415-845-4166 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quence 3, Application US/08843993
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COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Patent PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/234,265A
FILING DATE: 28-APR-1994
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
                               SEQUENCE CHARACTERISTICS:
LENGTH: 344 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN TRANSCRIPTION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 3174 POR CITY: Palo Alto
STRANDEDNESS:
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; CLONE: 1244515
US-09-059-520A-3
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                                                              Best Loc
Matches
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                                                                                               Query Match
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                                                                                                                                                                                                                                                                                            PILING DATE:
ATTORNEY AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPIAN: 415-855-0555
TELEPIAN: 415-85-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN TRANSCRIPTION FACTOR
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                  TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GenBank
CLONE: 1244515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 317.
CITY: Palo Alto
                                                                                                                                                                             TOPOLOGY: line
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS
LENGTH: 344 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/059,520A FILING DATE: Filed Herewith PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                           Local Similarity
nes 6; Conserv
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Local Similarity 100.0%; Pred. No. 79
nes 6; Conservative 0; Mismatches
                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Incyte Pharmaceuticals, Inc. STREET: 3174 Porter Drive
208 DYYPEE 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208 DYYPEB 213
                               2 DYYPEE 7
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                                                                Conservative
                                                                                                                                                                                                  linear
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                                                            84.1%; Score 37; DB 3;
100.0%; Pred. No. 79;
Live 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                    PF-0274 US
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. 79;
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RESULT 13 US-09-334-275-3 ; Sequence 3, Application US/09334275 ; Patent No. 6037132

GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN TRANSCRIPTION FACTOR
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:

ADDRESSEE:

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Best Local &
                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN TRANSCRIPTION FACTOR
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 415-845-4166 INFORMATION FOR SEQ ID NO:
           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FABLEEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/334,275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,7
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 344 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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LIBRARY: General National States
                                                                                                                                         STREET: 3174 POR
CITY: Palo Alto
STATE: CA
APPLICATION NUMBER:
                                                                                                                          COUNTRY:
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6; Conserva
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3174 Porter Drive
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US/08/843,993
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US-09-059-520A-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FRASISEO for Windows Version 2.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/059,520A
FILING DATE: Filed Herewith
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
FI
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: HUMAN TRANSCRIPTION FACTOR
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415.855-0555
                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
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LIBRARY: SYN00
CLONE: 727885
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REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-
TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                        TOPOLOGY: line
                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                       TYPE: u.....
STRANDEDNESS: sin
CTOTY: linear
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CITY: Palo Alto
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STRANDEDNESS: sin
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100.0%; Pred. No.
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CLOME: 727885
US-09-925-22AA-1

QUETY MATCH
Best Local Similarity 100.0%; Pred. No. 79;
MATCHES 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 209 DYPRE 214

Search completed; September 9, 2005, 15:57:56

Job time: 29 secs
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                   Match Length
                                                                                                                                                                                                                                      100.0
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1 YDYYPEE 7
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Copyright (c) 1993 - 2005 Compugen Ltd.
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/ Cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_RUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
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/ Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
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    17 US-10-880-922-43

17 US-10-880-922-50

17 US-10-880-922-50

17 US-10-880-922-57

17 US-10-880-922-58

18 US-10-881-405-22

18 US-10-467-020-15

15 US-10-068-426-11

14 US-10-068-426-11
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Sequence 43, Appl
Sequence 44, Appl
Sequence 50, Appl
Sequence 57, Appl
Sequence 58, Appl
Sequence 22, Appl
Sequence 14, Appl
Sequence 15, Appl
Sequence 10, Appl
Sequence 11, Appl
Sequence 11, Appl
Sequence 12, Appl
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9	-10-408-765A	-11-053-19	-10-825-127-	-10-825-127-	0-382-758-	-10-382-758-	-10-382-758-	-10-068-42	-10-068-426-	-10-068-426-	-10-382-758-	-10-382-758-	-10-382-758-	-10-068-426-	-10-068-426-	-10-068-426-	-10-868-37	-10-868-371-	-10-868-371	-10-382-758-	-10-382-758-	-10-068-426-	-10-068-426-	-10-868-371-	-10-382-758-	-10-068-426-	-10-	68-371-	-10-868-371-	-10-382-758-1	-10-382-758-	US-10-382-758-10
е е - 1-4-	equence 430,	equence 2	equence 14,	equence 7,	w W		1	Sequence 3, Appli	2	1, Appl		e 5, Appl	4, Appl	6, Appl	5, Appl	4, Appl	7, Appl	4, Appl	3, Appl	8, Appl	7, Appl	8, Appl	7, Appl	5, Appl	9, Appl	e 9, App]	e 6, Appl	e 2, Appl	1, Appl		11,	

ALIGNMENTS

US-10-880-922-43

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CURRENT APPLICATION NUMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
PRIOR APPLICATION NUMBER: 60/484,061
PRIOR PILING DATE: 2003-06-30
NUMBER: OF SEQ ID NOS: 64
SOFTWARE: Patentin Ver. 3.2
SEQ ID NO 43
LENGTH: 18
TYPE: PRT
ORGANISM: Artificial Sequence
PERTURE:
COTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: peptide
US-10-880-922-43
S
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: PLAKSIN, DANIEL
APPLICANT: LEVANON, AVIGDOR
APPLICANT: SZANTON, ESTHER
APPLICANT: HAGAY, YOCHEYED
APPLICANT: HAGAY, YOCHEYEL
APPLICANT: KINFI, YARIV
TITLE OF INVENTION: ANTIBODIES AND USES THEREOF
FILE REFERENCE: 10793-143
                                Query Match
Best Local Similarity
Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Publication No.
 1 YDYYPEE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/10880922
No. US20050069955A1
                                    Conservative
                                                     100.0%; Score 44; DB 100.0%; Pred. No. 1.3;
                                    0;
                                      Mismatches
                                                                         17;
                                    0
                                                                       Length 18;
                                      Indels
                                    0,
                                    Gaps
                                    ٥,
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100.0 100.0 100.0 100.0

100.0

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YDYYPEE 15

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NUMBER OF SEQ ID NOS: 64
SOFTWARE: Patentin Ver. 3.2
SEQ ID NO 50
LENGTH: 18
TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Sulfated Tyr
US-10-880-922-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 44, Application US/10880922 Publication No. US20050069955A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 50, Application US/10880922 Publication No. US20050069955A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 3.2
SEQ ID NO 44
                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: PLAKSIN, DANIEL
APPLICANT: LEVANON, AVIGDO
APPLICANT: SZANTON, ESTHEI
APPLICANT: HAGAY, YOCHEVEI
APPLICANT: BEN-LEVY, RACHI
                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
PRIOR APPLICATION NUMBER: 60/484,061
PRIOR FILING DATE: 2003-06-30
NUMBER CT TO TO THE PRIOR FILING DATE: 2003-06-30
                                                                                                                                                                                                                                                                                                          APPLICANT: BEN-LEVY, RACHEL
APPLICANT: NISGAV, YAEL
APPLICANT: KANFI, YARIV
TITLE OF INVENTION: ANTIHODIES AND USES THEREOF
FILE REFERENCE: 10793-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
PRIOR APPLICATION NUMBER: 60/484,061
PRIOR FILING DATE: 2003-06-30
PRIOR FILING DATE: 2003-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BEN-LEVY, RACHEL
APPLICANT: NISGAV, YAEL
APPLICANT: KANFI, YARIV
TITLE OF INVENTION: ANTIBODIES AND USES THEREOF
FILE REFERENCE: 10793-143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: PLAKSIN, DANIEL APPLICANT: LEVANON, AVIGDOR APPLICANT: SZANTON, ESTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 64
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ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: MOD_RES
LOCATION: (9)
OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                              LEVANON, AVIGDOR SZANTON, ESTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HAGAY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 44; DB 17; Length 18; Ilarity 100.0%; Pred. No. 1.3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YOCHEVED
                                                                                                                                                                                                                                                                                                                                                                                                                        YOCHEVED
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide FEATURE:
NAME/KEY: MOD RES LOCATION: (11)
OTHER INFORMATION: Sulfated Tyr
US-10-880-922-57
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; LCCATION: (12)
; OTHER INFORMATION: Sulfated Tyr
US-10-880-922-50
                                                                                                                                                                                                                                                                                                                                          밁
APPLICANT: PLAKSIN, DANIEL
APPLICANT: LEVANON, AVIGOOR
APPLICANT: SZANTON, ESTHER
APPLICANT: HAGAY, YOCHEVED
APPLICANT: HEGAY, YOCHEVED
APPLICANT: HISGAV, YAEL
APPLICANT: KANFI, YARIV
TITLE OF INVENTION: ANTI-BODIES AND USES THEREOF
FILE REFERENCE: 10793-143
CURRENT APPLICATION UMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
US-10-880-922-57
                                                                                                                                                                                                                                                                 US-10-880-922-58
                                                                                                                                                                                                         Sequence 58, Applica Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 3.2
SEQ ID NO 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 57, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: NISGAV, YAEL
APPLICANT: KANFI, YARIV
TITLE OF INVENTION: ANTIBODIES AND USES THEREOF
FILE REFERENCE: 10793-143
CURRENT APPLICATION NUMBER: US/10/880,922
CURRENT FILING DATE: 2004-06-30
PRIOR APPLICATION NUMBER: 60/484,061
PRIOR PELICATION NUMBER: 60/484,061
PRIOR FILING DATE: 2003-06-30
NUMBER OF SEQ ID NOS: 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 18
                                                                                                                                                                                                                                                                                                                                                                   1 YDYYPEE 7
                                                                                                                                                                                                                                                                                                                                          9 YDYYPEE 15
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LEVANON, AVIGDOR
SZANTON, ESTHER
HAGAY, YOCHEVED
BEN-LEVY, RACHEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10880922
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100.0%; Pred. No. 1.3;
tive 0; Mismatches
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Pred. No. 1.3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      17;
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                                                                                                                                                                                                                                                                                                                                                                                                                   0
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NUMBER OF SEQ ID NOS: 64

PRIOR APPLICATION NUMBER: 60/484,061 PRIOR FILING DATE: 2003-06-30

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                          S
                                                                                                                 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: peptide US-10-881-405-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-880-922-58
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                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/484,235
PRIOR FILING DATE: 2003-06-30
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PATENTIN Ver. 3.2
SEQ ID NO 22
                                                        Matches
                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 22, Application US/10881405
Publication No. US20050152906A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/881,405
CURRENT FILING DATE: 2004-06-30
                                                                                                                                                                                                                                                                                                                             APPLICANT: SZANTÓN, ESTHER
APPLICANT: KANFI, YARIY
APPLICANT: BEN-LEVY, RACHEL
APPLICANT: SZRAJBER, TALI
TITLE OF INVENTION: SPECIFIC HUMAN ANTIBODIES
FILE REFERENCE: 10793/145
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: MOD RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (9) OTHER INFORMATION: Sulfated Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                             LENGTH: 19
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                                                                      Local
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                                                       Similarity
7; Conserve
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                            1 YDYYPEE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 7; Conserv
YDYYPEE 14
                                                                                                                                                                                                                                                                                                                                                                                                                      COOPERMAN, LENA
HAGAY, YOCHEVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AMIT, BOAZ
                                                        Conservative
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                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                        0.
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                                                                     Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 44;
Pred. No.
                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.3;
                                                                                   DB 18; Length 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 17; Length 18;
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                                                        Indels
                                                        0
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RESULT 7

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GENERAL INFORMATION:

APPLICANT: Lu, Xinjie
APPLICANT: Vir Rakkar, Vijay
TITLE OF INVENTION: Integrin-Binding Chimeras
FILE REFERENCE: 6613-66094
CURRENT APPLICATION NUMBER: US/10/467,020
CURRENT FILING DATE: 2003-08-01
PRIOR APPLICATION NUMBER: US 60/267,234
PRIOR FILING DATE: 2001-02-05
PRIOR FILING DATE: 2001-02-05
PRIOR FILING DATE: 2002-02-05
RESULT 9
US-10-068-426-10
; Sequence 10, Application US/10068426
; Publication No. US20030091576A1
; GENERAL INFORMATION:
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US-09-779-054-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-779-054-14
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LENGTH: 66
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                   SOPTWARE: PatentIn version 3.0
SEQ ID NO 15
LENGTH: 66
TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/09779054
Patent No. US20020120102A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15, Application US/10467020 Publication No. US20040072315A1
                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                    Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: A-70312/TAL/AMS
CURRENT APPLICATION NUMBER: US/09/779,054
CURRENT FILING DATE: 2001-02-05
PRIOR APPLICATION NUMBER: GB 0002625.2
PRIOR FILING DATE: 2000-02-05
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lu, Xinjie
APPLICANT: Kakkar, Vijay
TITLE OF INVENTION: USE
FILE REFERENCE: A-70312.
                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: Modified Dendroaspin (KGDW-dendroas)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                           57 YDYYPEE 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57 YDYYPEE 63
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                                                                                                                                                                               YDYYPEE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 44; DB 9; Length 66
100.0%; Pred. No. 4.7;
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0
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                                                                                                                                                                                                                  Score 44; DB
Pred. No. 4.7
0; Mismatches
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4.7;
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CURRENT APPLICATION NUMBER: US/10/068,426
CURRENT ETILIG DATE: 202-06-02-06
PRIOR APPLICATION NUMBER: 60/266,838
PRIOR TILING DATE: 2001-02-06
NUMBER OF SEQ ID NOS: 20
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10
LENGTH: 200
LENGTH: 200
TYPE: Dam
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; FEATURE;
; NAME/KEY: DOMAIN
; LOCATION: (1)..(290)
; OTHER INFORMATION: GP1b290
US-10-068-426-10
                 RESULT 11
US-10-068-426-12
; Sequence 12, Application US/10068426
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, NAME/KEY: DOMAIN
; LOCATION: (1)..(290)
; OTHER INFORMATION: GB1b290/2V
US-10-068-426-11
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US-10-068-426-11
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SEQ ID NO 11
LENGTH: 290
TYPE: PRT
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CUTRENT APPLICATION NUMBER: US/10/068,426
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/266,838
PRIOR FILING DATE: 2001-02-06
NUMBER OF SEQ ID NOS: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Shaw, Gray D.
APPLICANT: Sako, Dianne S.
APPLICANT: Kumar, Ravindra
APPLICANT: Sullivan, Francis
APPLICANT: McDonagh, Tom
TITLE OF INVENTION: Platlet Glycoprotein IB Alpha Fusion Polypeptides and
TITLE OF INVENTION: Methods of Use Thereof
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
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7; Conserva
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McDonagh, Tom
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Sequence 10, Application US/10382758

Publication No. US20030232047Al

GENERAL INFORMATION:
APPLICANT: Shaw, Gray D.
APPLICANT: Sako, Dianne S.
APPLICANT: Sullivan, Francis
APPLICANT: Sullivan, Francis
APPLICANT: McDonagh, Tom
ITILE OF INVENTION: Platlet Glycoprotein IB Alpha Fusion Polypeptides and
ITILE OF INVENTION: Methods of Use Thereof
FILE REFERENCE: 22058-503
CCURRENT APPLICATION NUMBER: US/10/382,758
CCURRENT FILING DATE: 2003-03-06
PRIOR APPLICATION NUMBER: US/10/068,426
PRIOR APPLICATION NUMBER: 00/266,838
PRIOR FILING DATE: 2001-02-06
PRIOR FILING DATE: 2001-02-06
PRIOR FILING DATE: 2001-02-06
PRIOR FILING DATE: 2001-02-06
                                                                                                                                    ; ORGANISM: Homo sapiens
; FEATURE;
; NAME/KEY: DOMAIN
; LOCATION: (1)..(290)
; OTHER INFORMATION: GP1b290
US-10-382-758-10
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US-10-382-758-10
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SEQ ID NO 10
LENGTH: 290
TYPE: PRT
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SEQ ID NO 12
LENGTH: 290
TYPE: PRT
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Best Local Similarity
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/266,838
PRIOR FILING DATE: 2001-02-06
NUMBER OF SEQ ID NOS: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Sako, Dianne S.
APPLICANT: Kumar, Ravindra
APPLICANT: Sullivan, Francis
APPLICANT: McDonagh, Tom
TITLE OF INVENTION: Platlet Glycoprotein IB Alpha Fusion Polypeptides and
TITLE OF INVENTION: Methods of Use Thereof
FILE REFERENCE: 22058-503
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OTHER INFORMATION: GB1b290/1A
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                                                                  100.0%; Score 44; DE 100.0%; Pred. No. 21;
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276 YDYYPEE 282

RESULT 13
US-10-382-758-11
i Sequence 11, Application US/10382758
i Publication No. US20030232047A1
i Publication No. US20030232047A1

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; LOCATION: (1)..(290)
; OTHER INFORMATION: GB1b290/2V
US-10-382-758-11
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 290
TYPE: DOT
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SEQ ID NO 11
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CURRENT FILING DATE: 2003-03-06
PRIOR APPLICATION NUMBER: US/10/068,426
PRIOR FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/266,838
PRIOR FILING DATE: 2001-02-06
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Kumar, Ravindra
APPLICANT: Sullivan, Francis
APPLICANT: McDonagh, Tom
TITLE OF INVENTION: Platlet Glycoprotein IB Alpha Fusion Polypeptides and
TITLE OF INVENTION: Methods of Use Thereof
FILE REFERENCE: 22058-503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Sullivan, Francis
APPLICANT: McDonagh, Tom
APPLICANT: McDonagh, Tom
TITLE OF INVENTION: Plattlet Glycoprotein IB Alpha Fusion Polypeptides and
TITLE OF INVENTION: Methods of Use Thereof
FILE REFERENCE: 22058-503
CURRENT APPLICATION NUMBER: US/10/382,758
CURRENT FILING DATE: 2003-03-06
PRIOR APPLICATION NUMBER: US/10/068,426
PRIOR APPLICATION NUMBER: US/10/068,426
PRIOR PILING DATE: 2002-02-06
PRIOR PILING DATE: 2001-02-06
FEATURE: DOMAIN
NAME/KEY: DOMAIN
LOCATION: (1)..(290)
OTHER INFORMATION: GB1b290/1A
10-382-758-12
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APPLICANT: Sako, Dianne S.
APPLICANT: Kumar, Ravindra
APPLICANT: Sullivan, Franc
                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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Pred. No. 21;
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APPLICANT: Shaw, G. et al.

TITLE OF INVENTION: PLATELET GLYCOPROTEIN IB ALPHA VARIANT FUSION

TITLE OF INVENTION: POLYPEPTIDES AND METHODS OF USE THEREOF

FILE REFERENCE: 22058-583

CURRENT APPLICATION NUMBER: US/10/868,371

CURRENT FILING DATE: 2004-06-14

PRIOR APPLICATION NUMBER: 60/477,525

PRIOR FILING DATE: 2003-06-11

NUMBER OF SEQ ID NOS: 10

SOFTWARE: PATENTIN Ver. 2.1

SEQ ID NO 1
                                                                                                                                                               Query Match
Best Local Similarity
Matches 7; Conserv
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Best Local Similarity 100.0%; Pred. No.:
Matches 7; Conservative 0; Mismatch
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                                                                                                                                                                                                                                                             LENGTH: 290
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                   276 YDYYPEE 282
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